

The Co-benefits Corner Newsletter Vol.4 2014

The Asian Co-benefits Partnership (ACP) is an informal and interactive platform established in 2010 to improve information sharing and stakeholder coordination for realising mainstreaming climate and environmental co-benefits into decision-making processes in Asia.



ACP released the first biannual White Paper: "Bringing Development and Climate Together in Asia"



The emergence of recent serious air pollution episodes in Asia has generated a need in understanding co-benefits from effective reduction of short-lived climate pollutants (SLCPs) and greenhouse gases (GHG). The ACP White Paper 2014 -the partnership's initial flagship publication- was published standing at such critical juncture.

After two years since the initial concept, the biannual ACP White Paper was published in March 2014 to present stock-taking of the history and knowledge of the ACP targeting the latest information on co-benefits in Asia. Starting from review of developments on co-benefits research -both in climate and air pollution perspectives- and the lessons, the report explains that co-benefits can be a driver for efficiently addressing current serious air pollution episodes in Asia, bringing co-benefits to long-term climate change mitigation. It underlines the importance of SLCPs by placing them in a wider context that includes GHG mitigation because Asia is a region with the estimated highest gains from unifying these two perspectives together. The report was created with collective endeavour by more than 35 authors and contributors from ACP and beyond.

A series of high-profile reports that informed the world on SLCPs highlight that Asia would see more than 60% of the co-benefits from introducing a set of priority technical mitigation measures. Yet there is also considerable scope before this potential is realised. This ACP White Paper is organised around realising this potential in Asia. The main messages of the White Paper include the followings.

 Recent trend of view on co-benefits has gained attention because implementing a suite of 16 SLCP

- priority measures in Asia could help reduce global mean warming by ~0.3°C by 2050. The same measures could help avoid approximately 0.3 to 3 million annual premature deaths and boost annual crop yields by approximately 20 to 100 million tonnes in 2030 (and beyond) in Asia.
- Countries in Asia would not only realise co-benefits from implementing SLCP measures. They could also find solutions to other pressing environmental problems —such as air pollution crises— by recognising that taking action on SLCPs is one but not the only step to a more integrated approach to air pollution and climate change policy.
- In Asia, such an integrated approach could develop to include recognising the varying impacts of black carbon, tropospheric ozone, methane as well as non-methane precursors of ozone and cooling pollutants (sulphur dioxide (SO₂) across space and time. It would also look at the varying temporal and spatial impacts from mitigating GHGs in line with other pollutants such as nitrogen oxides (NO_x).
- But accommodating existing regulatory and policy frameworks to this integrated approach will be difficult as policymakers and the institutions within which they work tend to be organised around achieving one objective at a time. Many countries in Asia could nonetheless draw upon experiences with air pollution and climate initiatives that support multiple objectives.

Overall, the White Paper suggests that both researchers and policymakers have come a long way from the early work on co-benefits. And given that Asia is the region with the most to gain from considering co-benefits, much of the progress in narrowing this gap will play out in the region. The ACP hopes to be at the forefront of these efforts.

→ Get a copy of "ACP White Paper 2014" from HERE

QUpcoming Activities

■ 4th ACP Advisory Group Meeting in International Forum for Sustainable Asia and the Pacific (ISAP)

(July 24, 2014, Pacifico Yokohama, Japan)

The ACP Advisory Group members plan to discuss the ACP's work plan for 2014-2015 and the second work plan.



Thailand's experiences on air pollution control tell lesson for Asia and co-benefit opportunity with CCAC



Dr. Supat Wongwangwatana

- Regional Resource Centre for Asia and the Pacific, Asian Institute of Technology
- Former Director General of Pollution Control Department of Thailand (2007-2011)
- Former Secretary General of Office of Natural Resources and Environmental Policy and Planning of Thailand (2012)
- Q. You have significant experience in environmental and air pollution control policies in Thailand. Can you tell us about one of your more memorable milestones in air quality management in Thailand?
- A. My most memorable milestones in air quality management in Thailand is my contribution to the drastic reduction of air pollution and the consequent improvement of air quality in Thailand in particular in Bangkok which seemed to be impossible at the time in early 1990s. National Ambient Air Quality Standards have been reviewed and revised several time taking account of new scientific findings. Ambient concentrations of most of the conventional air pollutants, i.e. total suspended particulate (TSP), lead (Pb), carbon monoxide (CO), sulfur dioxide (SO₂) and nitrogen oxides (NO_x), in Thailand declined gradually and have complied with the National Ambient Air Quality Standards of Thailand for many years.

This achievement has been made through concerted efforts by government agencies, private sectors and the people which have been put into cleaning up the fuels and the vehicles. Fuel quality standards and vehicle emission standards for new vehicles have been progressively made more stringent from none-Euro Standards to Euro 4 standards which have been implemented since early 2012. The Pb was totally removed from the gasoline almost 20 years ago which enabled the use of catalytic converters in the gasoline vehicles. Sulfur content has been at 50 ppm since early 2012 for both gasoline fuel (used to be 1,000 ppm) and diesel fuel (used to be 10,000 ppm). Additionally, motorcycle fleet in Thailand which used to be composed of two stroke engine motorcycles in early 1990s was totally changed to four stroke engine motorcycles with advanced fuel injection system as a result of the enforcement of progressively more stringent emission standards.

For stationary sources, existing power plants were cleaned up and more stringent emission standards have been enforced to the new ones. For the first time in Thailand, the emission trading scheme for SO_2 and NO_x was introduced and implemented in the Map Ta Phut Petrochemical Industrial Estate in the Eastern Seaboard of Thailand. Advanced emission control technologies for particulate matter, SO_2 , NO_x and volatile organic compounds (VOCs) have been employed by the industries to meet the emission standards.

Nonetheless, fine particles and ozone are still the remaining air pollutants which Thailand is still facing and need to be addressed.

- Q. You are also on the Scientific Advisory Panel for the Climate and Clean Air Coalition (CCAC). Please tell us about your role and how you see the development of CCAC regional activities (e.g. regional assessment) in Asia moving forward?
- A. I was recommended and invited to serve as a member of the Scientific Advisory Panel (SAP) for the CCAC starting from the end of last year. Although historically my work experience has been with the public sector not with the academic or research institutions, however, with my technical background in atmospheric environment which is needed for my works at the Department of Pollution Control and my experience in intergovernmental activities and network, I see my role in the SAP and the CCAC as a linkage between the scientific community and the policy makers to establish the science-policy interface for the development of science-based policies to address both air pollution and climate change at the same time.

Although a lot of efforts and achievements have been made in improving air quality in countries in Asia but fine particles, in particular those composed of black carbon, and ozone are still major problems which cause health impacts in the region. At the same time, black carbon and ozone are also regarded as Short-Lived Climate Pollutants which cause near-term climate impacts. The CCAC will play an important role in Asia to address both issues, i.e. clean air and climate, through the co-control/co-benefit approach. One of the most important activities of the CCAC is the regional assessment to assess the present situation and future prospect and to identify the problem and the opportunity to address the problem as a region. It is needed as the justification to put forward to the policy makers at the national levels and various regional forums for their policy development and adoption.





