

# CO-BENEFITS OF AIR QUALITY

CO-BENEFITS ARE THE SECONDARY OR ADDED BENEFITS OF IMPROVED AIR QUALITY THAT RESULT FROM THE IMPLEMENTATION OF AIR POLLUTION MITIGATION POLICIES, STRATEGIES AND ACTIONS. A CO-BENEFITS APPROACH ACTIVELY INTEGRATES AIR QUALITY MANAGEMENT WITH CLIMATE CHANGE MANAGEMENT, WHICH IS CRITICAL TO ADDRESS BOTH ISSUES

## CONTEXT

Asia, one of the world's fastest growing regions, is home to 53 percent of the world's city dwellers. That growth is largely fueled by the rapid rate of urban expansion. And while that expansion presents a range of sustainability challenges, there also exists opportunities to develop and implement policies that simultaneously improve air quality and help to offset the impacts of climate change.

Recognizing co-benefits can potentially save resources and time for governments and will enable Asian countries and cities to not only attract new flows of carbon and development financing, but also reduce the region's vulnerability to climate change impacts. For these reasons, they are well positioned to capitalize on the integration of co-benefits into policies.

The adoption of an air quality co-benefits approach means capturing air quality and development benefits in a single policy or measure. Throughout the region, the co-benefits of air pollution reductions have been gaining momentum across the policy spectrum, and the sustainable development co-benefits derived from mitigating greenhouse gases have also become an expanding area of interest.

The growing interest in air quality co-benefits across the region reflects a desire to mitigate air pollution while simultaneously achieving other environmental and development priorities.

## WHY ARE CO-BENEFITS IMPORTANT?

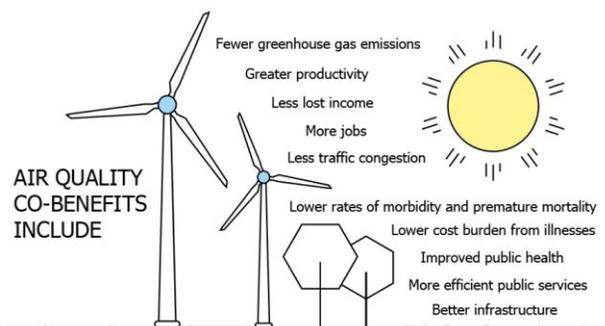
The greatest air quality co-benefits can be found in developing countries with high levels of air pollution. Even small reductions are likely to have large health benefits. This is because incremental health benefits are larger when the starting levels of air pollution are high.

This implies that the most important time to include air quality co-benefits in broader and more long-term strategies is at the beginning of policy development, particularly for developing countries lacking major air quality initiatives.

The major source of both ambient air pollution and greenhouse gas emissions is the burning of fossil fuels. Consequently, targeted policy actions to improve air quality can lead to substantial climate co-benefits and vice versa. As air pollution is responsible for one in eight premature deaths globally each year, and 2.6 million deaths in Asia, the health impacts of improved air quality represent a potentially powerful driver to simultaneously reduce carbon emissions (WHO 2014).

In addition, people are more likely to take action to address air pollution, or are more likely to support governments that take action on air pollution, if the wider co-benefits of those actions are known.

And, lastly, policymakers are more likely to undertake mitigation measures and enact appropriate policies if the co-benefits of such measures and policies are recognized.



The ease of implementing a co-benefits approach varies inversely with the scale and complexity of existing policies. Hence, the less developed a country's air pollution, the easier it is to institute a co-benefits approach. While this makes Asia a promising region for co-benefits, such factors as stages of economic development may contribute to interregional variations (IGES, 2009)

# IF MEANINGFULLY INTEGRATED INTO DECISION-MAKING PROCESSES, CO-BENEFITS PRESENT AN OPPORTUNITY FOR REALISING WIN-WIN SYNERGIES AND COST SAVINGS

## CO-BENEFITS AND INTERNATIONAL AGREEMENTS

International agendas such as the UN Sustainable Development Goals (SDGs) and the Paris Agreement offer governments throughout the region an opportunity to integrate a co-benefits approach into their air quality and climate change agendas.

The 17 SDGs provide an integrated framework that aims to leverage synergies across goals to guide, and help transform, development planning. One of the more promising areas for this transformational and integrated approach lies in capitalizing on the linkages between air pollution reduction, climate change mitigation and energy security, which are particularly relevant to co-benefits. The fact that the SDGs promote moving “beyond sectors” complements the principles underpinning co-benefits.

The Paris Agreement’s “integrated and holistic” non-market approaches similarly incentivize multi-benefit climate solutions.

## CHALLENGES

- Lack of consensus on the best entry point for integrating co-benefits into decisions
- Lack of agreement on the tools and methods to evaluate co-benefits
- Few cities have benchmark indicators against which policy impacts on co-benefits can be measured and monitored
- Many cities do not collect primary data to estimate such indicators
- Gaps in data and technical capacity to analyze data are major barriers to implementing policy actions that maximize co-benefits

## REGIONAL MAINSTREAMING OF CO-BENEFITS

Rapid economic growth and urbanization in the region has exacted a costly toll on the environment; it has also transformed how cities and other stakeholders are tackling these problems. Co-benefits have begun to resonate with policymakers in developing their own national and city-level air quality control strategies. Southeast Asia is therefore in a good position to more broadly adopt a co-benefits approach to future planning.

Translating co-benefits from concept into practice requires integration of a co-benefits approach in and across sectoral policies.

However, to mainstream co-benefits in Asia further efforts are needed in these areas:

**Clarifying concepts:** The concept of co-benefits itself is not yet certain enough to convince policymakers that is prudent to mainstream. Active communication will help share information on co-benefits, leading to less confusion and strengthening planned projects.

**Building capacity:** Estimating future emissions and quantifying costs and benefits are critical for better understanding of a co-benefits approach. Capacity building aimed at improving quantification methods is required.

**Removing financial barriers:** Once co-benefits are recognized and quantified, they will need to be financially rewarded. Currently, most policymaking process discount social and economic benefits. Building institutional arrangements and incentive structures that reward co-benefits could reduce initial cost barriers and draw investors into co-benefits projects.

### Example of air quality co-benefits:

Using cleaner sources of energy improves air quality through fewer emissions

It's cost-effective

It improves public health and the environment

It creates additional green jobs in renewable energy, saving costs in reduced fossil fuel imports

It reduces premature deaths and rates of morbidity from exposure to emissions

It contributes to fewer climate-changing greenhouse gas emissions and related health impacts such as the spread of vector-borne diseases



### Sources:

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