**Pakistan needs a breath of fresh air**

[Syeda Hadika Jamshaid](https://dailytimes.com.pk/writer/syeda-hadika-jamshaid/%22%20%5Co%20%22More%20Articles%20by%20Syeda%20Hadika%20Jamshaid)

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Rapid urbanisation in the country has led to economic growth but its unplanned nature has come at the dear cost of environmental deterioration.

Gone are the days when children used to look at clear skies at night, betting against each other whose star was shining the brightest. But now, with the atmosphere so contaminated, only a few pale specks are visible at night; particularly in the major cities. Lahore, the erstwhile city of gardens, now faces the worst effects of smog in the months of October, November and December while citizens desperately pray for rainfall, a wish that is seldom granted. This relationship between air quality and unpredictable weather patterns is fairly obvious and can be described in two words: climate change. The latter poses one of the most important challenges of the century. Indeed, it has manifested itself in the form of droughts, floods, natural disasters, incessant rainfall, extreme temperatures and reduced biodiversity. Fortunately, Pakistan has a designated entity that is cognisant of this pressing issue and is leaving no stone unturned in ensuring that the country adapts to the challenges of climate change; whilst promoting mitigation measures.

Air pollution here has reached critical levels. The suspended particulate matter, in either solid or liquid phases, is one of the major factors behind increased air quality indices. PM2.5 refers to particles which have a diameter of less than 2.5 microns (one millionth of a meter), whereas PM10 refers to particles that have a diameter of less than 10 microns. The impact of PM2.5 is such that 2016 saw the deaths of 4.1 million people across the world due to PM2.5. The WHO (World Health Organisation) suggests that the concentration of PM 2.5 particulate matter, which is highly hazardous for human health, stands at six times the acceptable limit, whereas the concentration of NOx, SOx, Ozone, COx surpassed all acceptable levels. Outdoor air pollution results in premature deaths of 30 people per 100,000; the country also faces 22,000 premature adult deaths with 163,432 disability adjusted life years lost. The economic costs of air pollution stand at USD 410 million, and the social implications of indoor air pollution result in 25 deaths per 100,000 people, mostly women. Furthermore, the reduction of average life expectancy by 2.7 years due to air pollution is one of the major social issues that we are facing as a nation.

It is incumbent upon the government to introduce measures which lead to the reduction of CO2 emissions, whilst devising an enabling framework for the aforementioned sector to achieve the ambitious targets

Growing industrialisation and urbanisation indicate that air quality in Pakistan will deteriorate over time unless targeted short-, medium-, and long-term strategies are developed and strictly implemented. Pakistan needs stringent protocols and increased capacities to accurately measure air quality indices. Thus, improvement in institutional and technical capacity of air quality management and monitoring organisations is also of key importance. Industrialisation and urbanisation, when combined with motorisation, have the potential to worsen urban air quality.

Against the backdrop of such multitude of problems, we need a breath of fresh air. That’s what Pakistan Clean Air Programme (PCAP) envisions. This is a one-of-a-kind initiative aimed at improving air quality nationwide. Funded by the Asian Development Bank (ADB), it involves a critical review of the current problems and proposes short- , medium-, and long-term mitigation measures to improve air quality indices. Through mass transit, adoption of electric vehicles and renewable energy resource utilisation — Pakistan can achieve the goal of clean atmosphere.

The country presently does not have a comprehensive nationwide air quality monitoring programme; lack of a nation-wide AQM network means that spatial and temporal trends of air pollution are difficult to access.However, independent actors have put up their own monitoring equipment and the data is fed into their websites for public use. Some of the data contains errors, such as higher values of PM2.5 as compared to PM10, which cannot be possible since the number of particles with diameter less than 10 microns will always be greater than the particles with diameter less than 2.5 microns Therefore, it is imperative to have a consistent air quality monitoring mechanism that can be fed into national database for evidence-based policymaking. PCAP seeks to address this issue through innovative measures, which can have far-reaching implications from a policy viewpoint.

The Ministry of Climate Change has been at the forefront in taking the agenda of improving air quality forward. Prime Minister Imran Khan’s idea of tree plantation came into fruition through the Ten Billion Tree Tsunami Programme, which focused on increasing the green cover of Pakistan to achieve biodiversity conservation and improving air quality. In the span of two years, the billionth tree was recently planted recently by the PM in Makhniyal Forest, Khyber Pakhtunkhwa to coincide with World Environment Day 2021. The Ministry also played an instrumental role in developing the National Electric Vehicle policy that recognises the need to shift from fossil fuels to clean energy sources, an idea unknown to most developing parts of the world but a necessary step to ensure clean air for all citizens of the country. Additionally, the Ministry of Climate Change launched Green Economic Stimulus during the pandemic to promote environmental activities and generate employment for those who were severely impacted due to lockdowns and closure of businesses.

In Pakistan’s Nationally Determined Contributions (NDCs), the energy sector contributed to 46 percent of the total CO2 emissions out of which 22 percent are from transport sector, whereas agriculture sector had the lion’s share of 43 percent. The industries contributed to 5.5 percent, whereas land use/forestry change and waste sector contributed to a cumulative 2.5 percent and 3 percent of CO2 emissions, respectively. In the wake of this, it is incumbent upon the government to introduce measures which lead to the reduction of CO2 emissions, whilst devising an enabling framework for the aforementioned sector to achieve the ambitious targets. These emissions directly contribute to the deteriorating air quality, and the programmes led by MoCC aim to reduce these emissions.

Pakistan is about to submit its second Nationally Determined Contributions (NDCs) and PCAP is helping Pakistan achieve its ambitious mitigation targets. Not only will the project help Pakistan achieve improved air quality and fulfil its commitment to reducing greenhouse gas emissions under the Paris Agreement — it will also improve overall health of society through reduced cases of chronic respiratory diseases. Undoubtedly, a healthy nation is a wealthy nation, and that is what Pakistan needs to ensure sustainable development.

*The writer is a Climate Change expert working on Nationally Determined Contributions (NDCs) and air pollution control in Pakistan.*