

Multi-level actions to strengthen NCAP

29th January, 2020

Background

Air pollution is a key concern in a developing economy like India. Despite several efforts by the Government of India, more than 75% of Indian cities violate the prescribed standards of air quality. Among many like oxides of nitrogen, carbon monoxide, hydrocarbons and sulphur di-oxide, particulate matter is the air pollutant of most concern in India. Not only because of its high concentrations in most cities but also because of severity of its impacts over human health. While many of these are directly related to respiratory disorders, some of them have shown evidence of linkages with cardio-vascular diseases and cancer. Research studies have also indicated significant impacts over agricultural productivity due to high ground level ozone concentrations in India.

There are preliminary city level action plans which are being formulated by the government to control air pollution in Indian cities in the past decade. Initially, the plans were formulated in the year 2006-07 for the seventeen hotspot cities, which at that time were not meeting the National ambient air quality standards. After that, Comprehensive Environment Pollution Index (CEPI) was formulated to characterize the environmental quality of an area or cluster. Based on CEPI, critically polluted industrial clusters were identified and action plan was formulated for the identified industrial clusters. Air quality management plans were also proposed for six cities (i.e. Delhi, Bangalore, Pune, Kanpur, Chennai and Mumbai) on the basis of source apportionment studies carried out in the year 2011. In Delhi, the MoEF&CC came up with a 42-point action plan in 2015 and a graded action plan was also notified for control of pollution in different categories of air pollution. Despite so many mitigation plans, the air quality scenario has not improved considerably over the years, at most places in India. This is due to variety of reasons. There are limited comprehensive scientific studies based on which scientific planning for air pollution control can be carried out. There are many cities, which are developing preliminary air quality management plans based on basic information on air quality and sources, but not on detailed scientific assessments pin-pointing the source contributions. Fortunately, now there are models available, which can be used for apportionment of sources contributing to primary and secondary pollutants. Further, contribution of regional scale pollution is generally not accounted in the city level air quality management plans. Other than the emission sources within the city, regional pollution sources also contribute significantly towards the deteriorating air quality of the cities. For example, as per recent study on source apportionment of Delhi- NCR region (TERI&ARAI, 2018), average contribution of Delhi's own emissions in Delhi PM_{2.5} concentrations was found to be at 36% in winter and 26% in summer, and rest is contributed by sources outside the city. In order to understand the regional scale pollution, national level inventories and understanding is required which is limited in Indian context. MoEF&CC, through NCAP, is planning to develop this capacity in next few years. There are also constraints related

to the technical capacity of local stakeholders, which is essential for formulation and implementation of air quality management plans. It is in this context that it becomes very important to employ a scientific approach towards air quality management in order to formulate adequate strategies at a regional as well as urban scale. These along with capacity building are the key gaps which need to be addressed.

Thematic Event

A thematic event will be held on 29th Jan from 10.30 am to 12.30 pm during the World Sustainable Development Summit (29th – 31st Jan 2020) with the following objectives:

Objective 1: To understand the issue of air pollution at a regional scale in India. Which are the factors contributing to the problem of air pollution based on estimates of national emissions database of India? And which are the key strategies that can work in reducing air pollution level at a regional scale?

Objective 2: What methods and tools can be used to effectively manage the air quality in Indian cities?

Objective 3: What are the learnings from the experiences of other countries and cities in tackling the problem of air quality?

In the first session of thematic event, high level representatives from ministry will discuss the progress made on several relevant aspects under the NCAP since its launch in Jan 2019. Sectoral contributions to national emission inventory will be discussed along with key interventions in major sectors contributing to air pollution in the country. Sectoral experts will be invited to discuss potential strategies, past experiences, and implementation challenges. The second session will focus on improving urban air quality management in Indian cities. Air quality management approach using cost benefit analysis will also be discussed. Experiences on city level actions and learning will be shared from cities of Karnataka, Gujarat, Bihar and Delhi by city and state representatives.

Further, the implementation of selected interventions will be discussed in details in the second thematic track “Clean Air Project in India- a SDC’s initiative” in the afternoon (2.30 pm – 4.30 pm) at Tamarind, IHC.

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