Project Abstract

Title: Establishment and application of an air quality management model for the Indo-Gangetic Plain (IGP-AQMmod)

Investigators:

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Project Summary:

High particulate matter ($PM_{2.5}$) concentration over the Indo-Gangetic Plain (IGP), making it the worst air pollution affected region in India, and perhaps in the world. Annual $PM_{2.5}$ level over this region is above 80 μg m^{-3}, which is twice the Indian national ambient air quality standard (NAAQs) of 40 μg m^{-3}. The primary objective of the project is to initiate an AQMmod network for the IGP region in India and advice on cost effective AQM planning in India. As part of the advisory process on AQM practices and to structure data collection and analytical work, the project is set to use an already applied and publicly available model – the **G**reenhouse gas and **A**ir pollution **In**teractions and **S**ynergies **(GAINS)** model – and draw upon technical, institutional, and political experiences from applying GAINS in different parts of the World. The model will be customized for the local conditions in the IGP which will help the State government of IGP region and Government of India (GoI) to reach the air pollution level target set under National Clean Air Program (NCAP) that is to mitigate air pollution using a systematic approach with a target of reducing $PM_{2.5}$ level by 30% in 2024 compared to the level in 2017.

Specific Deliverable:

1. Ensuring that all needed local data are provided and that India-specific source characterization by sectors are developed and applied to enable the set-up of an "IGP edition" of *the GAINS expert model* for AQM planning. The objective is also to ensure that India masters the *GAINS administration tool* which will enable India to sustain the AQM model capacity over the next 10 years or more.
2. Providing capacity building and technical knowledge to particularly the state PCBs and NCAP Knowledge Network (NKN) partners and relevant partners at the federal level (e.g. part of the SAB) to ensure good application of the IGP AQM model and gradually a national AQM model.