



No. 350/PA/DG/EPA/2025
GOVERNMENT OF THE PUNJAB
ENVIRONMENTAL PROTECTION AGENCY
NATIONAL HOCKEY STADIUM FERROZEPUR ROAD, LAHORE
Dated: 26/09/2025



To,

The Secretary,
Environment Protection and Climate Change Department
Lahore

SUBJECT: AQI FORECASTING AND ADVISORIES SYSTEM BY EPA PUNJAB

It is submitted that the Environmental Protection Agency (EPA), Punjab, has formally commenced its AI-powered Air Quality Index (AQI) Forecasting and Advisory System. This initiative marks a significant advancement in our environmental management framework, aligning with international best practices and leveraging advanced data analytics.

2. The system integrates:

- i. Real-time Monitoring data from EPA's AQMSs for PM_{2.5}, PM₁₀, O₃, NO₂, SO₂, and CO parameters.
- ii. Meteorological & Satellite data contributions from PMD, SUPARCO, NASA's Air Resource Laboratory (ARL), and Copernicus Atmospheric Monitoring System (CAMS)
- iii. Localized Contextualization of traffic patterns, holidays, festivals, and other socio-environmental factors for hourly and weekly forecasts.
- iv. We also intend to make it an open-source platform to promote transparency and collaboration among IT and environmental professionals.

3. The EPA will issue regular forecasts and advisories to inform public at large as well as policy-level decision makers through the above-mentioned comprehensive system, encompassing all the available primary and secondary data sources.

4. The Standard Operating Procedures (SOPs) for issuance of the said forecast as well advisories are as under:-

- a. The forecast of AQI, duly calculated through the above mentioned system, shall be issued with the approval of DG EPA.
- b. A working group, comprising of the relevant officers of EPA Punjab, for analysis of primary and secondary data sources, contextualization of

local factors and recommendations of the Forecast of AQI on every Friday has been notified vide this office letter No. 349/PA/DG/EPA/2025 dated 26.09.2025

- c. The said recommendations shall be examined by the Technical Committee for Analysis of AQI duly notified vide this office memo No. 315/PA/DG/EPA/2025 dated 18.08.2025 on every Friday.
- d. After necessary refinement, the forecasting report about hourly variations of AQI for the next 7 days shall be issued.
- e. The Director General EPA Punjab shall issue advisories to the public as well as the government departments, keeping in view the said forecast, in consultation with the Provincial Critical Air Pollution Events Committee, where necessary.

5. EPA Punjab anticipates that the regular issuance of these forecasts will significantly enhance public awareness and enable better-informed decisions by all concerned. In addition, EPA Punjab is working on future upgrades, including integration with mobile applications, SMS alert systems for direct citizen outreach, and geo-spatial/district-level forecasting.


DR. IMRAN HAMID SHEIKH (PAS)
DIRECTOR GENERAL
ENVIRONMENTAL PROTECTION AGENCY
PUNJAB

Copy forwarded for information & necessary action to:

- i. All Administrative Secretaries, Govt. of the Punjab.
- ii. All Divisional Commissioners, Govt. of the Punjab.
- iii. The Director General, Provincial Disaster Management Authority, Punjab
- iv. The Director General, Metrological Department, Govt. of the Punjab
- v. The General Manager, SUPARCO, Punjab.
- vi. All Deputy Commissioners, Govt. of the Punjab.
- vii. The Additional Secretary (Staff), Chief Secretary's Office, Lahore.
- viii. The Additional Secretary (Coordination), Chief Minister Office, Lahore.
- ix. The Secretary, Judicial Water & Environment Commission (JWEC), Punjab
- x. The Chief Environment & Climate Change, P&D Board, Lahore.
- xi. The Additional Director Generals / Directors, EPA, Lahore.
- xii. PSO to Minister for Environment, Forest and P&D Board, Punjab.
- xiii. All the Deputy Directors / Assistant Directors / Research officers (Field/Technical/Lab)
- xiv. PSO to Senior Minister, Punjab.
- xv. The In charge Strategy and Analysis wing EPA, Punjab
- xvi. The Incharge Social Media Team, EPA Punjab
- xvii. PA to Director General, EPA