Hong Kong's air quality in 2023 (with photo/video)

The Environmental Protection Department (EPD) announced today (February 7) an overview of Hong Kong's air quality in 2023.

The air quality data recorded by the EPD's air quality monitoring stations in 2023 (as detailed in Annex 1) reveal that with the resumption to normalcy of social and economic activities, the emissions of local air pollutants returned to their normal levels. There was a slight increase of 1 to 2μ g/m3 in levels of certain ambient air pollutants (namely respirable suspended particulates (PM10), fine suspended particulates (PM2.5), nitrogen dioxide (NO2) and sulphur dioxide (SO2)) as compared to 2022. That notwithstanding, the air quality in 2023 remains the second best since Hong Kong's return to the motherland. Compared to 2021, except for PM2.5 which remained at a similar level, the ambient levels of the other air pollutants improved by 7 to 20 per cent, indicating that the overall improvement trend of Hong Kong's air quality remains unchanged.

Hong Kong's overall air quality in 2023 complied broadly with Hong Kong's Air Quality Objectives. The annual average concentrations of PM10, PM2.5, NO2 and SO2 in the ambient air have reduced by 40 per cent to 69 per cent from 2011. In the same period, the annual average pollutant concentrations at the roadside have reduced by 46 per cent to 58 per cent. The annual average concentration of ozone (03) has also gradually turned steady in the past few years. The number of hours of reduced visibility in Hong Kong has greatly reduced by 81 per cent from its peak in 2004 (as detailed in Annex 2).

As for relatively high levels of nitrogen oxides (NOx) being recorded in some locations in Hong Kong, such as Mong Kok, Sham Shui Po and Kwai Chung, an EPD spokesman said, "With the Government's continued promotion and implementation of the comprehensive air quality improvement measures put forth in the Hong Kong Roadmap on Popularisation of Electric Vehicles, the Clean Air Plan for Hong Kong 2035 and Hong Kong's Climate Action Plan 2050 announced in 2021, including the promotion of electric vehicles, green transport and net-zero electricity generation, local NOx emissions will be further reduced and the overall air quality in Hong Kong will improve continuously."

In addition, the Government is preparing to tighten the volatile organic compounds (VOCs) content limits of 22 types of regulated architectural paints and extend the VOCs control to seven types of cleaning products; tighten the sulphur content limits of locally supplied marine light diesel and industrial diesel to 0.001 per cent; and control the manufacture and import/export of hydrofluorocarbons (HFCs) as well as restrict the supply of products and equipment with HFCs of high global warming potential, with a view to further enhancing Hong Kong's air quality. On regional collaboration, the three-year study on "Characterization of photochemical ozone formation, regional and super-regional transportation in the Greater Bay Area" has been completed, providing a preliminary understanding of the causes and transport characteristics of ozone within the region. The governments of Guangdong, Hong Kong and Macao will work together in four synergistic directions to further improve air quality of the Pearl River Delta Region, including strengthening the joint efforts in reduction of NOx and VOCs emissions; promoting collaboration in control of ozone and PM2.5; co-ordinating joint efforts in control of air pollutants and greenhouse gases; and managing the regional air quality collaboratively.

Meanwhile, the Environment and Ecology Bureau completed a new round of Air Quality Objectives (AQOs) Review in 2023. The Hong Kong Special Administrative Region Government will further tighten five prevailing AQOs and include three new parameters introduced in the Global Air Quality Guidelines (AQGs) of the World Health Organization (WHO). Among the 15 updated AQOs, seven of them are set at the most stringent levels specified in the WHO AQGs.

