

Pollutant Long-term Trends (1990 – 2020)

Air quality is affected by both emissions and meteorology. Over a short period, for instance a few months to a year, air quality is more subject to variations in weather conditions, even though the emission levels are more or less the same, e.g. stronger solar radiation will promote photochemical smog formation, more rainfall will help scrub the pollutants from the air, etc. In the long run, however, air quality is primarily affected by emissions. Therefore, a scientific way to assess air quality changes and the effectiveness of emission control measures is to examine the trend of annual average pollutant concentrations over the years.

The long-term trends for air pollutants presented are based on their annual average concentrations recorded from the relevant air quality monitoring stations categorised into four groups of land use types, namely Urban, New Town, Rural and Roadside as defined in Table 1 below.

Table 1: Classification of Air Quality Monitoring Stations by Land Use Types

Land Use Type	Land Use Characteristics	Air Quality Monitoring Stations
Urban	Densely populated residential areas mixed with some commercial and/or industrial areas	Central/Western, Eastern, Kwun Tong, Sham Shui Po, Kwai Chung, Tsuen Wan and Tseung Kwan O
New Town	Mainly residential areas	Yuen Long, Tuen Mun, Tung Chung, Tai Po and Sha Tin
Rural	Rural areas	Tap Mun (background station)
Roadside	Urban roadside in mixed residential / commercial areas with heavy traffic and surrounded by many tall buildings	Causeway Bay, Central and Mong Kok

Remark: Since air pollutants measurement at Southern and North general stations commenced in July 2020 only, there is not sufficient data for the calculation of annual averages and therefore these two stations are excluded in the classification.

Figure 1: Sulfur Dioxide Long Term Trend

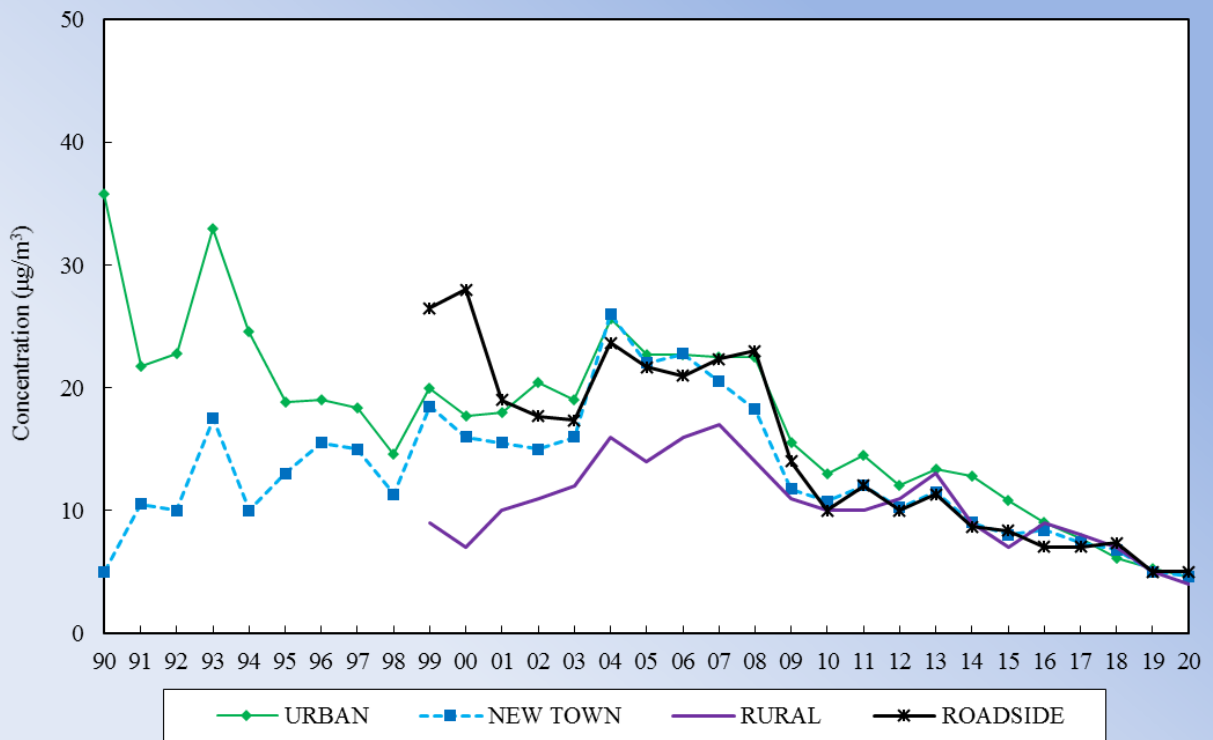


Figure 2: Respirable Suspended Particulates Long Term Trend

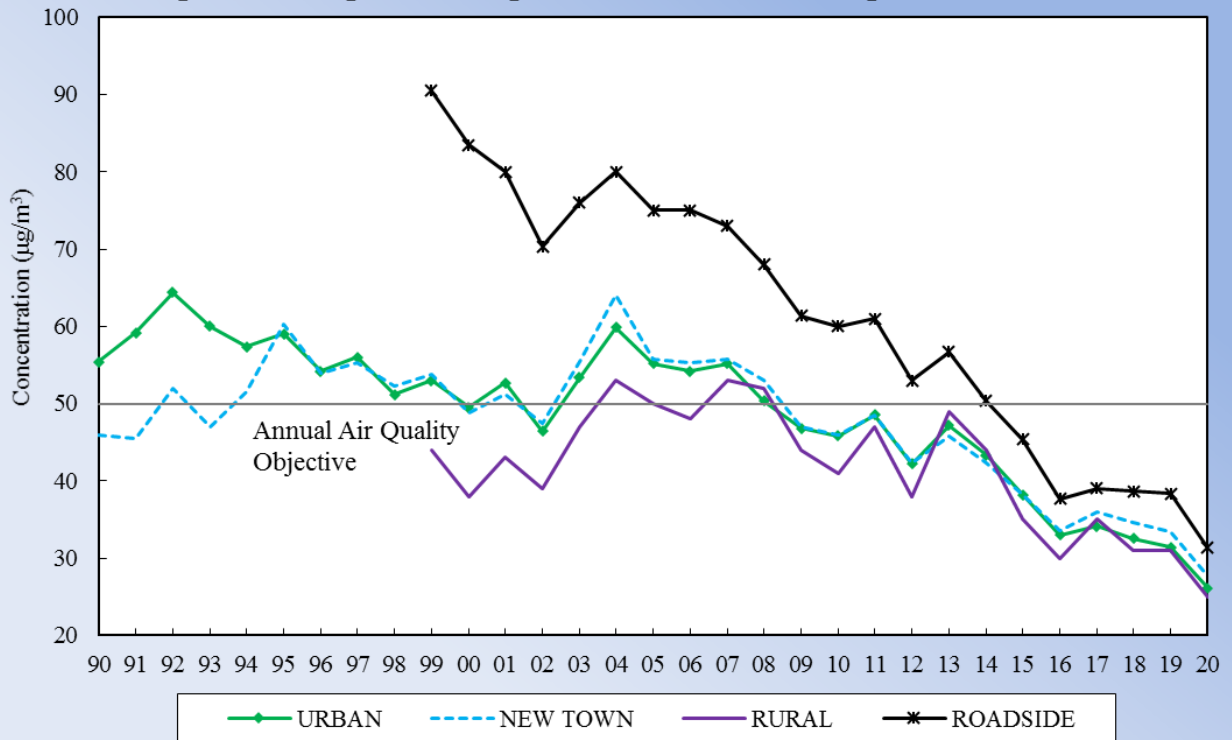


Figure 3: Fine Suspended Particulates Long Term Trend

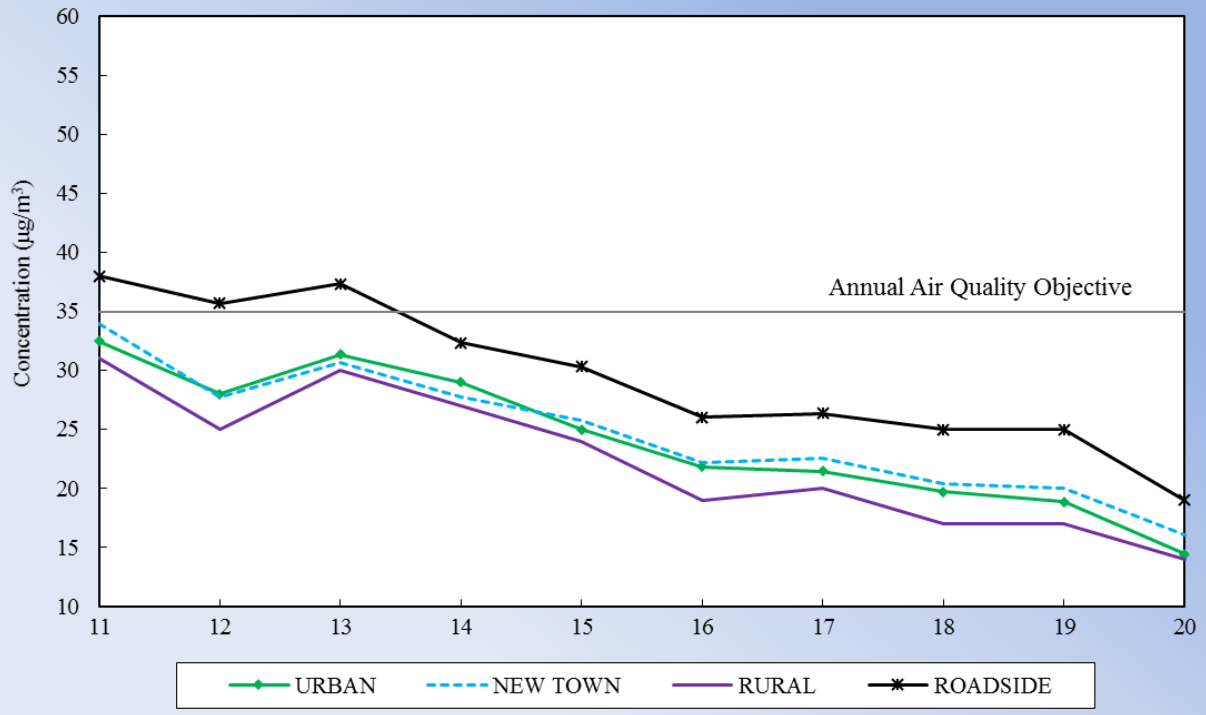


Figure 4: Ozone long term trend

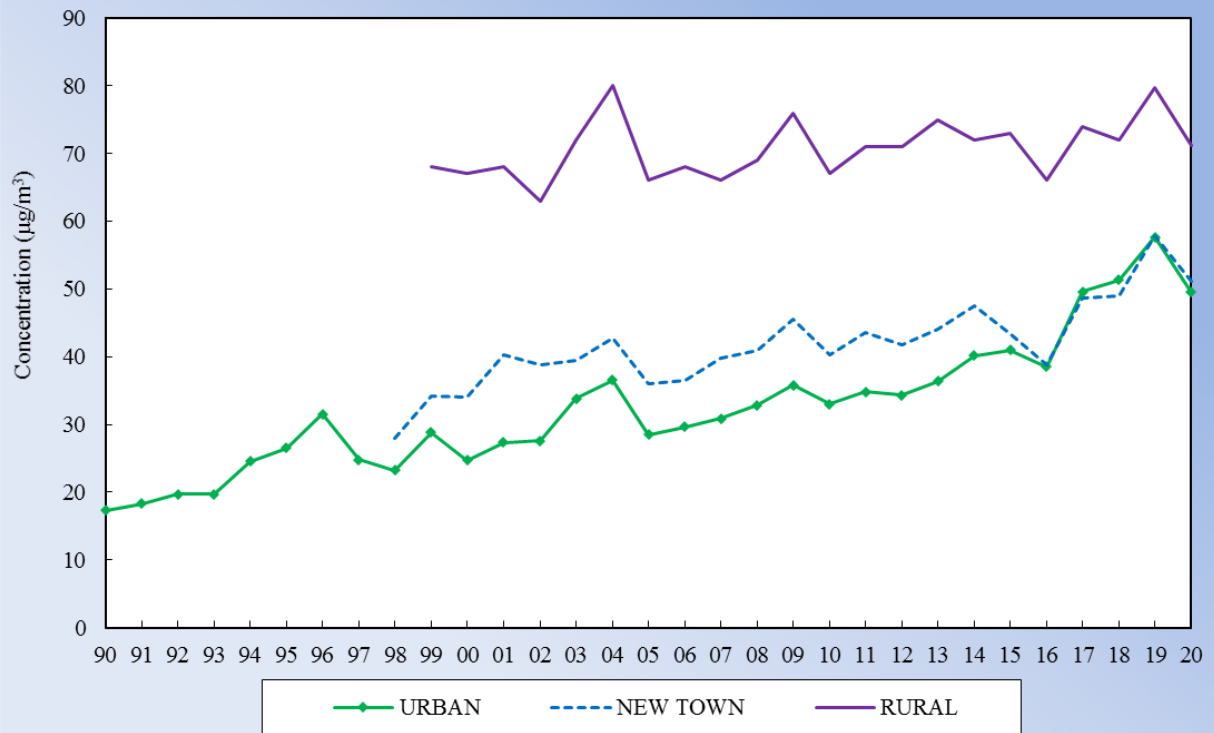


Figure 5: Nitrogen Oxides Long Term Trend

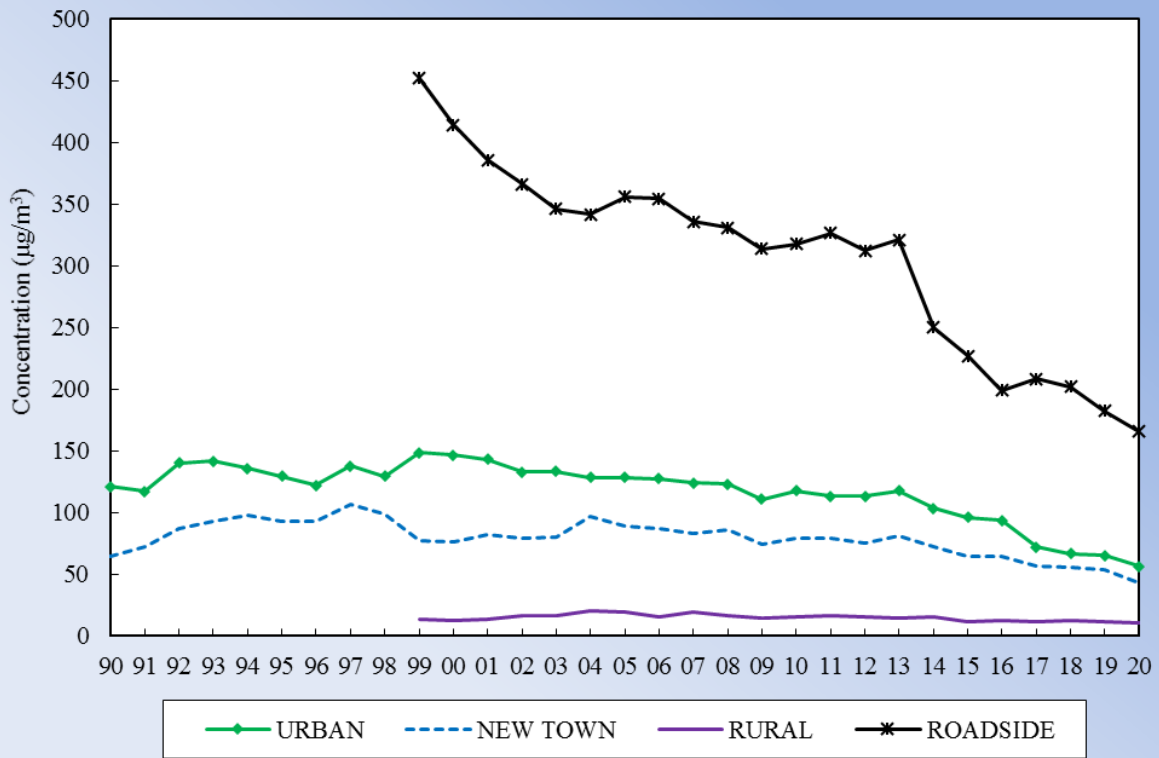


Figure 6: Nitrogen Dioxides Long Term Trend

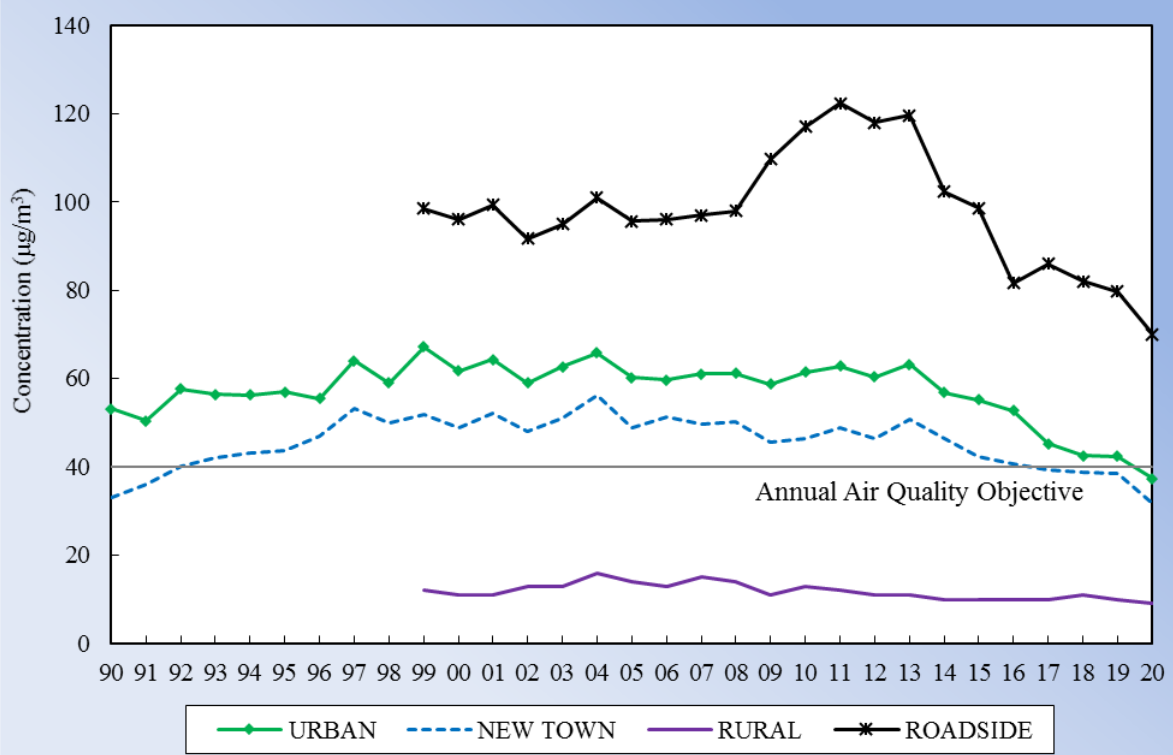


Figure 7: Carbon Monoxide Long Term Trend

