Abstract

Air pollution is now a day's a most burning environmental issue worldwide. According to WHO, it is estimated that around 700 million deaths annually are caused by air pollution alone. The short life expectancy and increased number of ischemic heart disease are due to exposure to harmful air pollutant. In 2016, air pollution has caused 4.2 million premature deaths worldwide and 91% of these experienced by middle and low-income countries - specifically belonging to South East Asia and Western Pacific Region. This air pollution also results in considerable economic loss, such as in, 2013 air pollution was responsible for loss of 10% GDP of China. In Pakistan, the ambient air quality standards along with other tangible limits on the emissions of certain air pollutants is prescribed in air quality standards both at provincial and national level. The study was conducted in Lahore based on the multiple pollutants, the aggregate AQI was developed using the concertation of CO, SO_2, O_3 and NO_2. The AQI during the pre-winter days was falling the category of unhealthy for sensitive group, during winter days the AQI was from moderate to unhealthy and during post-winter days it was very unhealthy. The main cause of increased AQI was SO_2 during winter and O_3 during post winter days. The maximum AQI during pre-winter days was 185, during winter days was 234 and during post winter days it was 359. The high AQI during post-winter days was due to increased commercial activities after lockdown. The hospital data revealed that with the increased AQI the number of patients admitted to the hospital also increased. In Pakistan, a multiple aggregate pollutant AQI can used to access the role of each pollutant on the AQI and can be helpful in controlling the pollutant at source. A coherent and incentive based policy is required to control the air pollution.