

Air Quality Index Change of Urban Areas in the Present Scenario

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Abstract: *The most critical environmental issue which threatens public health today affects urban air quality throughout twenty-first century. The combination of rapid urban growth with industrial development and increased vehicle traffic and new land use practices has caused major air quality declines in cities worldwide. The study investigates current urban air quality index patterns which affect major cities throughout the world and India by examining particulate matter emissions and nitrogen dioxide and sulfur dioxide and carbon monoxide and ground-level ozone pollutants together with meteorological and human activity and governance factors which influence air quality results. The article utilizes current monitoring evidence together with scholarly studies to demonstrate how AQI developed through time across different urban environments which include South and East Asian megacities and African industrializing cities and European postindustrial urban centers. The study assesses how policy measures that include emission control policies and green infrastructure development and clean energy transition efforts restore air quality standards. The results demonstrate how different air quality patterns develop in urban areas based on three factors which include a city's economic development status and its governance effectiveness and its geographical location.*

Keywords: urbanization, air quality index, particulate matter, PM2.5, emission sources, urban air pollution