

MEXICO CITY AIR QUALITY PROBLEMS - PRESENT, PAST AND FUTURE IN ONE OF THE BIGGEST AND MOST POLLUTED MEGA CITIES OF THE WORLD

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This paper presents an air quality assessment of the Mexico Mega-City from a historic, present and prospective-strategic points of view, in order to explain the origins of its air quality problem, its present state, and how the Mexican government and the national and international research institutions are proposing to tackle it in the near future. The discussion is carried out in the context of assessing and comparing the air quality information collected in the region for more than 20 years, with the threshold values recommended by the World Health Organization (WHO), and with the European Union (EU) limit values. Thus, the assessment also presents information on the frequency and severity of exceedances of air quality objectives and on the fraction of urban population potentially exposed to harmful levels of air pollution. In addition, the whole exercise is carried out presenting comparative values between the Mexico Mega-City and the London metropolitan area, trying to place into context the Mexican metrics presented with the much better known case study of London, using it as a benchmark. Mexico City has, historically, serious problems with sulphur dioxide, particulate matter, carbon monoxide and ozone in addition to moderate to heavy pollution for lead and nitrogen dioxide. Mexico City suffers in particular due to its high altitude and climate which results in poor ventilation, in addition to the large number of old and poorly maintained vehicles.