**Air pollution in African Cities – the impact of human activities and road traffic in a strategic and populated area**

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**Abstract:**

Air pollution has become a global threat to our health. Atmospheric pollutants, in the form of particulate matters (PM) or gaseous substances are responsible of a number of diseases affecting our brain, lungs and heart. Recent studies found poor air quality reduces life expectancy in some parts of the world and has an increasing economic cost. Deteriorating air quality is a major concern in African cities. Nevertheless, no or very few resources are allocated by governments to assess pollutants concentration and adopt adequate measures. In Senegal, the government has installed with the help of The World Bank several monitoring stations in the city of Dakar. In this study, we focus on one of these station which is installed in the strategic area of Dakar-Plateau. Data used were recorded in 2019, deals with the assessment of the concentration of solid (PM10, PM2.5) as well as gaseous pollutants (SO2, NO2, and O3). We looked at the daily, weekly and monthly variation of the concentration level of different pollutants. It was found that the road traffic has an influence on the pollutant concentration and is linked to the density of the traffic – heavy traffic is observed around 18:00 PM when most workers are living their office and this coincides with a high concentration of pollutants. It was observed also a seasonal variation, January and February being the months with the poorest air quality. The average concentration of SO2 recorded is 37.10 µg.m-3, that of NO2 is 28.78 µg.m-3 and that of O3 is 30.56 µg.m-3.

Keywords: atmospheric pollution, African cities, road traffic, health effects