

A Brief Note on Air Pollution

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Short Communication

Journal of Environmental and analytical Toxicology commemorates its decade long service to the scientific community by consistently publishing peer-reviewed articles and tracking the progress and significant advancements in the field of oral health. Ever since its inception in the year 2010, in addition to regular issue releases on a quarterly basis, this trans disciplinary journal is also releasing special issues and conference proceedings from time to time, thus comprehensively covering a wide range of topics and emerging challenges in environmental related problems to explore advanced research areas within this field. The journal focuses on application oriented research on harmful effects of various chemical, biological, and physical agents on individual living organisms. The Journal, Environmental & Analytical Toxicology is of highest standards in terms of quality. In this issue some of the recent and impactful research articles that were published by the journal will be discussed.

There is concern that contribution of vehicular emission to air pollution in India is increasing, especially in the major cities. The concern was probably based on increasing vehicular population and heavy traffic congestion on many roads. Of particular concern is the growing traffic congestion in many such cities. Traffic congestion has disproportionate contributions to air pollution probably as a result of incomplete combustion in stationary vehicles [1].

The land transport system is rapidly increasing in major cities like Port Harcourt, due to rapid development of the city, which is characterized by increased industrialization. Road traffic emissions are increasing, producing many negative impacts on air quality on roads, intersections and ring roads. Traffic emissions, such as carbon monoxide (CO) and PM_{2.5}, are one the primary contributor to overall air pollution from this infrastructure and the primary source of traffic emissions is vehicular exhausts [2]. Consideration has been growing regarding the effects of vehicle traffic on pollutant concentrations and health outcomes. In most cities, air quality challenges are caused mainly by vehicle emissions, and recent epidemiological studies have revealed excess morbidity and mortality for people living and doing business close to roadways [3].

Several studies have shown how motor vehicles have emerged as

the largest source of urban air pollution. They reported that in many other developing countries, poor urban air quality is largely attributable to motor vehicle emissions. This problem is bound to grow worse as problem of vehicles increases. There is concern that contribution of vehicular emission to air pollution in India is increasing, especially in the major cities. The concern was probably based on increasing vehicular population and heavy traffic congestion on many roads. Of particular concern is the growing traffic congestion in many such cities have shown to an extent how vehicular emissions due to traffic congestions contribute highly to air pollution in Port Harcourt. Such studies suggested that effective environmental management of traffic emissions in urban cities requires adequate knowledge of pollutant characteristics in each city. Besides, all these investigation into what constitute air pollution in major cities like Port Harcourt, little attention seems to have been given on the concentration level of these emissions at different time of the day and for more than one season (24 months). Producing a model, which will help understand the behavior of some of the air pollutants (CO and PM_{2.5}) with regards to factors responsible for its concentration have not been widely researched on, especially for two seasons. Therefore, this paper examined the relationship between the daytime pattern in vehicular volume and air pollutants concentration in the study area. Also, pollutant concentration model based on the traffic volume and meteorological pattern in the study area was produced. The modeling was done in other evaluate possible future emission using mathematical estimation. This study used a time series model which was done for two years (24 months).

References

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