

## IMPACT OF EMISSION STANDARDS ON PARTICULATE POLLUTION FROM DIESEL VEHICLES

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### Abstract

Particulate matter is the most important contaminant in our air. We know that when particle levels go up, people die. A number of studies also show changes in inflammatory markers in the blood, which are risk factors for heart attack.” (Joel Schwartz, Ph.D., Harvard School of Public Health, E Magazine, Sept./Oct. 2002) Comparison of ambient air quality monitoring data of Central Environmental Authority with the epidemiological study results of the World Health Organization indicates that the current  $PM_{10}$  concentration in Colombo is sufficient to cause a 7% increase in the daily mortality rate in addition to causing 25% increases in cough and bronchiodialatory use.

Vehicle has been identified as the primary emitter of air pollutions in the urban areas of Sri Lanka. Most of the air pollution from vehicles is caused by particulate matter, unburned hydrocarbons, carbon monoxide, nitrogen oxides and sulphur oxides emanated in combusting petrol and diesel, the major two fuel types used in the country. The major particulate matter polluters are diesel vehicles.

Sri Lanka published revised mobile emission, fuel quality and vehicle specification standards for importation by the gazette Extraordinary No. 1295/11 dated 30<sup>th</sup> June 2004 based on the results of a pilot project conducted under the World Bank funded Urban Air Quality Management Project, on the emission levels of various kinds of vehicles. Once implemented it should reduce the emission load from vehicles to the atmosphere. This study assesses the particulate emission reduction from each types of diesel vehicles due to the implementation of emission standards.