

# **HEALTH IMPACTS OF DIESEL VEHICLE EMISSIONS: THE CASE OF COLOMBO**

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## **ABSTRACT**

This study makes an attempt to assess the health effects of diesel vehicle exhaust emissions in Colombo and the costs of various pollution control interventions. As far as we are aware, this is one of very few studies which has taken into account the effect of both PM<sub>10</sub> and PM<sub>2.5</sub> in estimating the potential health damage of auto-diesel emissions. The study begins with an analysis of structural changes in vehicle population and auto-fuel consumption in Sri Lanka. This is followed by an assessment of ambient air quality levels in Colombo based on both sample observations and statistical estimation methodologies. The estimates reveal that diesel vehicles account for about 89 per cent of PM<sub>10</sub> emissions in Colombo. The estimated health damage is in the region of Rs. 22 to 17 billion per annum based on high and low impact scenarios. Of the various pollution control measures, reduction of the price differential between petrol and diesel ranks as the most beneficial intervention followed by inspection and maintenance programs. In overall terms, policy-oriented pollution control options take priority over technical solutions in reducing potential health damage due to auto-diesel emissions.

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