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A Cost-Benefit Evaluation of the Air Quality and Health Impacts in São Paulo, Brazil

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ABSTRACT

The objective was to assess the impact on health due to the exposure to air pollution derived from the renewal of the urban bus fleet in São Paulo. The study analyzed the substitution of the bus fleet through the variation of the concentration of atmospheric pollutants such as PM10 in the municipality of São Paulo and its associated health's benefits values compared to the investments performed in the bus fleet renewal. PM10 average annual reduction due to the bus improvement system resulted on 22.3%. A cost-benefit evaluation considered the renewal investments' costs compared to the obtained valued health benefits and it resulted in 4.31. Although the result may suggest a not viable investment, it must be observed that air pollution reduction favors health impacts and that this relation could be improved if additional investments on sustainable transportation increase.

KEYWORDS

Air Quality; Cost-Benefit; Health Impacts; Transportation; São Paulo; Brazil

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