

Vehicles, Air Pollution, and Climate Forcing: A Business Perspective

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Abstract

Global warming is an important issue facing the automotive industry. Society's assessment of global warming may change in the future as the science develops, but the present risk is clear. The climate appears to be changing, the changes appear to be outside natural variation, and the likely consequences will be serious. This talk will provide a business perspective on vehicle emissions and their contribution to air pollution and climate forcing. Estimates of current and future emissions of CO₂, HCs, CO, NO_x, PM, R-134a, N₂O, and CH₄ by the global vehicle fleet will be presented and discussed. Vehicle miles traveled are expected to double over the 2000-2050 time period. However, the absolute magnitude of emissions of "criteria" pollutants (HCs, CO, NO_x, PM) is projected to decline substantially (by a factor of approximately 5-10). Associated benefits for local air quality and climate forcing will be discussed.