

# Alternative approaches to reduce in-use vehicle emissions

In developing their overall strategy for clean vehicles, policymakers should consider other alternative approaches to reduce in-use vehicle emissions such as vehicle retrofitting, converting to alternative fuels, mandatory scrappage of old vehicles, among others.

- Policymakers should be aware, however, that a successful retrofit program for in-use vehicles requires a system engineering approach that includes a rigorous I/M program, proper catalyst or other effective device, optimized catalyst location and appropriate quality fuel.

**Retrofit program for in-use vehicles in Tokyo using diesel particulate filters**




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**Age limits on public transport vehicles, other commercial vehicles, and motorcycles have proven to be effective in eliminating gross polluting vehicles**

- Certain cities or organizations have banned the entry of polluting vehicles in certain city areas or in their organization compounds. Policymakers should note that while the resulting impact on air pollution may be limited, the impact on awareness raising could be considerable.
- Fuel additives also have the potential to reduce emissions, but policymakers must take special care to ensure that no new pollutants are introduced and that an independent laboratory has verified an additive's effectiveness with the vehicle types in which it will be used.
- Age limits on public transport vehicles, other commercial vehicles, and motorcycles have proven to be effective in eliminating gross polluting vehicles. Policymakers should develop adequate incentives to encourage such phaseout programs.

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