

# Introduction

As part of its Regional Technical Assistance (RETA) project to reduce motor vehicle air pollution, Asian Development Bank (ADB) organized and hosted a workshop focused on vehicle emissions standards and strengthening vehicle inspection and maintenance programs. The workshop was held in Chongqing, People's Republic of China on 7–9 November 2001. The *Policy Guidelines on Vehicle Emissions Standards and Inspection and Maintenance* summarize the most important policy conclusions and recommendations from the workshop.

There are three main international approaches to standards setting: European, American and Japanese. Most countries in the Asian region have tended toward the European standards for new cars and trucks, relying largely on the UN Economic Commission for Europe (ECE).<sup>1</sup> With regard to motorcycles and scooters, however, the standards adopted by India, Thailand and Taipei, China are seen as the most advanced. These standards are discussed in a separate policy paper, the *Policy Guidelines on Cleaner Two and Three Wheelers*.<sup>2</sup>

Emissions standards exist for carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NO<sub>x</sub>), smoke and particulate matter (PM) from vehicles because each of these, along with secondary by-products such as ozone, can cause serious adverse effects to health and the environment. Because of the growing vehicle population and high emission rates from many of these vehicles,

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serious air pollution and health effect problems have become increasingly common phenomena in modern life.<sup>3</sup> The adverse health effects and environmental damage can cause substantial economic impacts as well.

New vehicle standards are only beneficial to the degree that they result in actual emission reductions from vehicles as they are driven in use. To minimize the deterioration of emissions controls that result from new vehicle standards and to assure that vehicles achieve the full emission reductions that they are capable of, an in-use vehicle focus must include in-use standards and ongoing testing programs.