

## Abstract

This study focuses on gasoline-powered personal vehicles because they represent ~60% of transportation emissions (Metcalf and Weisbach, 2009), while the remaining emissions come from heavy-duty vehicles and aircraft. Furthermore, these vehicles account for 95% of light-duty vehicle sales (Parry et al., 2007). Based on the methodology, the scope of the study is limited to the factors pertaining to emissions that affect vehicle exhaust emissions, as well as factors pertaining to emission taxes including progressive engine size tax, progressive vehicle age tax, progressive emission tax, and progressive vehicle kilometers traveled tax. In addition, this study limits its scope to driver motivations. These elements play a key role in reducing vehicle emissions when considered as a strategy for reducing air pollution. Finally, this study limits its scope to cover Johor, Penang, and Klang Valley areas. These areas are densely populated, which means that private vehicle ownership levels are high. It was also observed that the sample areas are congested during day and night, which results in increased fuel consumption and an increased risk of emissions due to the increasing number of vehicles on the road