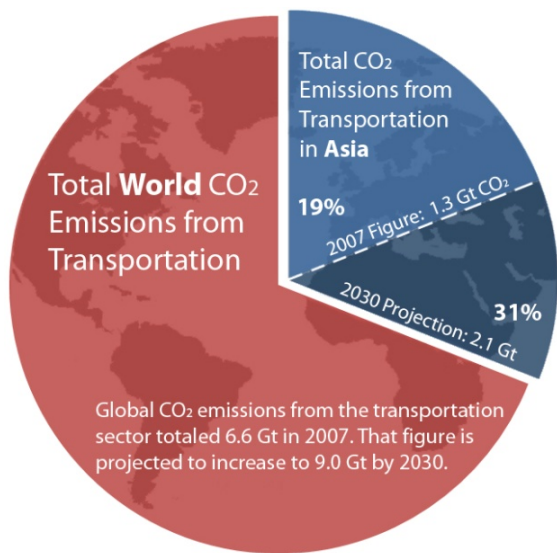


# Success Stories in Transportation

The transport sector has been named the fastest growing greenhouse-gas-emitting sector in the world by the World Resources Institute. The growth of privately-owned vehicles has been increasing at a faster pace than improved vehicle fuel efficiency, resulting in continuously growing amounts of air pollution and greenhouse gas (GHG) emissions. More vehicles on the road also means increased congestion and decreased road safety. According to the U.S. Energy Information Administration, by 2035 non-OECD Asia will account for 59 percent of the increase in global transportation demand. To ensure this demand is met as sustainably as possible, implementing more efficient transportation measures – including transit infrastructure and technological improvements – should be a priority.



According to a study by the Clean Air Initiative for Asian Cities, fuel consumption from automobiles is expected to increase more than three and a half times from 2005 to 2035 in Asian countries alone. Transportation energy use in India is expected to increase by 5.5 percent annually. Without appropriate actions, this increased fuel use will have a significant effect on roadway congestion, local air pollution, quality of life, and GHG emissions.

## Policy tools to reduce GHG emissions from vehicles:

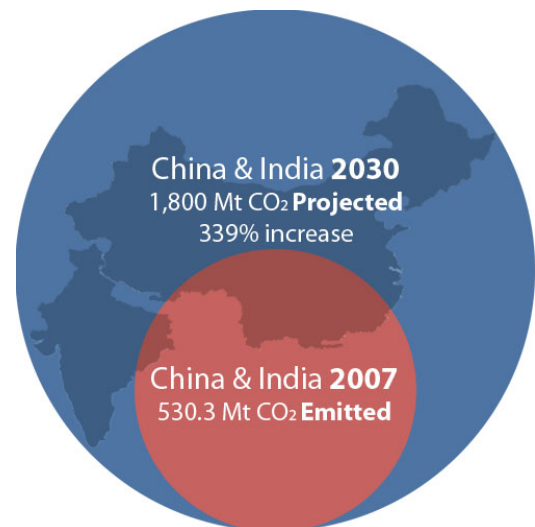
**Regulations**, including **fuel economy** or **GHG emissions standards** for manufacturers of vehicles. Many countries have requirements to purchase vehicles using **minimum technology standards** or place **importation restrictions** on used vehicles.

**Investments**, including support for more efficient vehicles, alternative fuel types, or planning for more efficient metropolitan-wide **public transit systems**.

**Fiscal Incentives**, such as **fuel taxes**, are often used as a method to raise revenues for road maintenance and operations, but they can also be used to reduce consumer demand for automobile travel. Other fiscal incentives to reduce demand include **congestion pricing**, **parking pricing**, **registration fees** or **rebates** based on fuel economy or emissions. The increased travel efficiency of **Electronic Toll Collection (ETC)** has improved quality of life, decreased consumer costs of fuel and time, and reduced vehicle emissions.

**Awareness programs** such as **fuel economy labeling** are required in many countries, including Germany, South Africa and Chile. Labels are required on all new vehicles so that customers can account for vehicle efficiency and fuel costs in their purchasing decisions.

**Most of these options will also achieve other beneficial social and environmental outcomes.**



## United States: SmartWay Freight Program

Freight trucks account for a rapidly growing share of transportation GHG emissions around the world. To limit the impact, the US SmartWay Freight Program incentivizes commercial shippers to improve their vehicle fuel-efficiency. The voluntary program headed by the Environmental Protection Agency (EPA) commits freight carriers and shippers who have opted into the program to track their fuel consumption, and benchmark their current freight operations, and make annual reductions to their carbon emissions.



The EPA estimates that the SmartWay program has led to savings of 50 million barrels of oil in savings from 2004-2011 – equivalent to taking 3 million cars off of US roadways for a year, or \$6.1 billion in reduced costs at the pump. In addition to reducing vehicle emissions, this program also increases demand for fuel-efficient technologies. With the tracking and monitoring of new technologies, companies can compare the performance of a wide range of products, therefore making more informed purchases.

SmartWay is an example of a win-win strategy to reduce emissions because it provides economic and environmental benefits. Businesses save money, overall vehicle GHG emissions are reduced, and technology advances are made due to increased market demand for fuel efficient products.

## China: Guangzhou BRT System

Winner of the 2011 International Sustainable Transport Award, the Guangzhou Bus Rapid Transit (GZ-BRT) system now serves over 800,000 passengers per day. With reduced car use and increased transit efficiency, the Institute for Transportation and Development Policy (ITDP) estimates that the GZ-BRT will reduce CO2 emissions by 86,000 tons per year, creating an average annual reduction of 4 tons of particulate matter, a pollutant linked to respiratory illness.



A key feature of the GZ-BRT is the segregated roadway lanes that allow the buses to run uninterrupted by private automobile traffic. These segregated lanes have integrated pedestrian walkways, metro stations, and bicycle lanes. Successful implementation was aided by several years of design, planning and analysis, with construction of all infrastructure, set-up of regulatory and operational systems, vehicle procurement and public outreach completed in 2009.

Data collection and monitoring is ongoing, however the ITDP published the system's first impact report in May 2011. The report shows significantly reduced traffic congestion, generating 52 million hours in time savings for travelers in 2010 with an estimated value of USD \$24 million per year. Bicycle trips on the busy corridor increased by an average of 45 percent from 2009 to 2010. Surveys showed a substantial increase in bus service satisfaction (from 29 to 65 percent) and civic pride after the implementation of the GZ BRT. Increased transit efficiency has led to aggregated consumer trip cost savings of USD \$103 million in 2010.



For more information, visit [www.ccap.org](http://www.ccap.org) or email Transportation Policy Analyst Chuck Kooshian at [ckooshian@ccap.org](mailto:ckooshian@ccap.org).