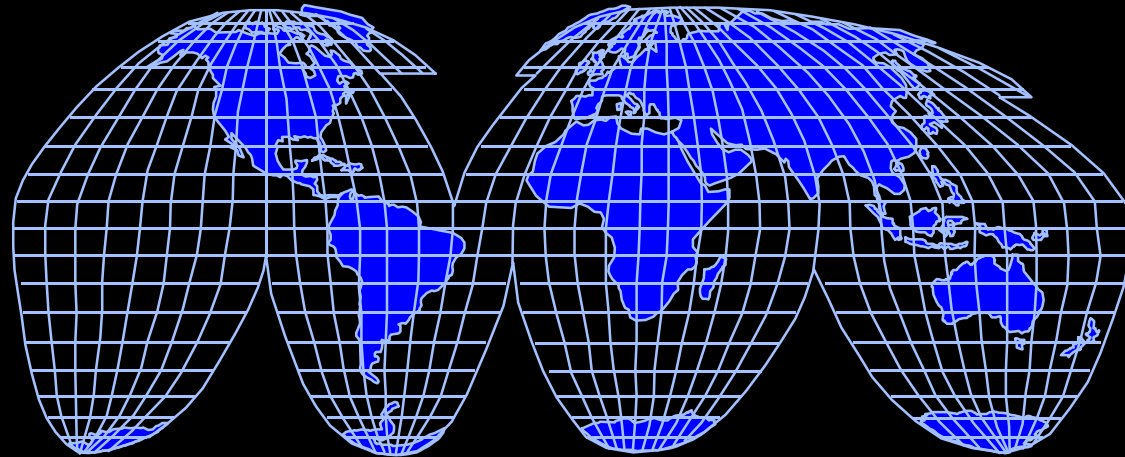




# Urban Air Quality Management





# Urban air quality management: key principles





# Urban air pollution: environmental concerns



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# Vehicular emissions in perspective





# Difficulties faced by policymakers





## Potential pitfalls in policy formulation

1.

2.



3.



# Increasing contribution of vehicles to pollution





## Approaches to vehicle pollution abatement

### ➤ Potential win-win measures

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### ➤ Targeted emission reduction measures

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# Illustrations





## Countries that have banned lead in gasoline

Canada,  
United States  
Mexico

Austria, Belgium, Denmark,  
England, Finland, France,  
Georgia, Germany,  
Holland, Hungary,

Costa Rica,  
El Salvador  
Guatemala  
Haiti, Honduras  
Jamaica, Nicaragua



Ireland, Norway,  
Portugal,  
Slovak Republic,  
Sweden

Argentina, Bolivia,  
Brazil, Colombia,  
Dominican Republic

Bangladesh, China,  
India, Japan, Philippines  
Thailand



## Two-stroke engine two- and three-wheelers



Data on Dhaka “baby-taxis” (ARAI, India)

vehicle age    lubricant                    %    PM, g/km



# Vehicle emissions: typical problems worldwide





# Lessons from Mexico City I/M





## Role of Fuel Pricing

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Example from India\*, February 2001, Rs./liter

93 RON gasoline

Diesel

Kerosene



## Role of Fuel Pricing (continued)





# Challenge to Policymakers





## Recommendations

➤ *Pursue*



*reconsider*

➤ *Educate*

➤ *Integrate*