Climate Change
Curbing Transportation’s Contributions
3 INTRODUCTION
Transportation and Climate Change:
Developing Technologies, Policies, and Strategies
Jonathan D. Rubin and Robert B. Noland
Significantly reducing greenhouse gas emissions from transportation will require actions that go beyond increasing vehicle fuel efficiency and that encompass initiatives in all of the major passenger and freight modes.

6 AMERICA’S CLIMATE CHOICES
The State of Climate Change Science and Options for Limiting Future Climate Change
Findings and recommendations are summarized from new National Research Council reports addressing the status of climate change science and the options for limiting the magnitude of climate change.

10 Why Focus on Transportation for Emissions Reduction?
Emil Frankel and Thomas R. Menzies, Jr.
Transportation may be an important precursor and testing ground for national, economywide action to reduce energy use and the emissions of greenhouse gases.

12 Legislative and Regulatory Moves to Reduce Transportation’s Greenhouse Gas Emissions
Robert B. Noland

15 Curbing Carbon Dioxide Emissions from Transportation: Scenarios for Meeting the Global Challenge
Lew Fulton
A European study indicates that the widespread adoption of new vehicle technologies and fuels, along with mode shifts, can help stabilize atmospheric concentrations of greenhouse gases within targeted ranges—but strong policy actions and a willingness to embrace change are needed.

21 NEW TRB SPECIAL REPORT
A Transportation Research Program for Mitigating and Adapting to Climate Change and Conserving Energy
Michael D. Meyer and Stephen R. Godwin
To assist federal, state, and local policy makers, an expert committee recommends a research program to develop the best guidance quickly on the effectiveness, costs, feasibility, and acceptability of transportation mitigation and adaptation strategies.

23 TRB Special Task Force Produces Climate Change Primer and Research Needs Statements
Mark R. Norman

24 TRB SPECIAL REPORT
Driving and the Built Environment: The Effects of Compact Development on Motorized Travel, Energy Use, and CO2 Emissions
José A. Gómez-Ibáñez and Nancy Humphrey
A new study examines the relationship between land development patterns and motor vehicle travel in the United States and assesses whether petroleum use—and greenhouse gas emissions—could be reduced with more compact, mixed-use development.

26 Traffic Congestion and Greenhouse Gases
Matthew Barth and Kanok Boriboonsomsin