

Electric Two-Wheelers in India and Viet Nam

Market Analysis and Environmental Impacts



Contents

Abbreviations	iv
Acknowledgments	v
Executive Summary	vi
Introduction	1
Background	2
Ahmedabad, India	2
Ha Noi, Viet Nam	3
Market Analysis	4
Choice Experiment Survey Design	4
Attributes and Levels	4
Choice Sets	6
Sampling	6
Vehicle Choice and Respondent Preferences	11
Market Estimation Results	11
Ha Noi, Viet Nam	11
Willingness to Pay Estimates and Tax Effects	16
Market Share Predictions	19
Ahmedabad, India	22
Willingness to Pay Estimates	24
Market Share Predictions	24
Environmental Impacts	28
Impact Estimation Methodology	29
Emission Rates of Electric Scooters in India and Viet Nam	30
Environmental Impacts of Electric Scooter Adoption	31
Lead Pollution	35
Conclusions	37
Instruments to Improve Electric Scooter Adoption	37
Role of Policy Makers	38
Role of Industry	38
Joint Role	39
Final Remarks	39
Appendixes	40
Logit Modeling Formulation	40
Electric Vehicle Emission Rate Estimation	41
Market Analysis	42