

# **Electric Vehicle Technology in Kathmandu, Nepal: A Closer Look at its Development**

by

**Sushila Maharjan**

Submitted to the Department of Urban Studies and Planning on July 10, 2002 in partial fulfillment of the requirements for the degree of Master in City Planning

## **ABSTRACT**

Electric vehicle (EV) development in the Kathmandu Valley began in 1993 as a response to the urgency of a severe air pollution situation. The dynamics of government intervention, non-governmental organization advocacy, international donor support, and private sector involvement all shaped EV implementation in various ways. Its success led other South and East Asian cities to view it as a model for implementing EVs to alleviate air pollution. Yet despite a promising beginning and intensive proliferation, the EV industry was failing only six years after its inception. What went wrong with a development that seemed to have all the makings of success?

This thesis outlines the EV development trajectory and examines the principal factors that impeded progress. Interviews with over 30 individuals in the electric vehicle industry, government agencies, NGOs, and international donor organizations provided me with first-hand accounts of the puzzles of EV development. Also, my research in published and unpublished documents, local press coverage, and an EV news server added rich material for analysis. The most entrenched barriers to the implementation of the EV industry have been the disparate interests and goals of stakeholders, in particular the resistance and hostility of fossil-fuel interests, and deficiencies in human resources and support networks. Analysis of these impediments yields lessons on how EV advocates can overcome these obstacles. Lessons learned in this thesis are that EV advocates must build a coalition of supportive actors, seek governmental commitment for EV-supportive policies, work to align the disparate economic goals of private actors, and develop a capacity for training and education.

Thesis Supervisor: Lawrence Susskind  
Title: Ford Professor of Urban and Environmental Planning