

SCHOOL OF ENGINEERING  
STANFORD UNIVERSITY  
STANFORD, CALIFORNIA 94305

DEPARTMENT OF CIVIL ENGINEERING  
FREDERICK EMMONS TERMAN ENGINEERING CENTER

A SYSTEM DYNAMICS APPROACH TO  
EVALUATING TRANSPORTATION SYSTEM ALTERNATIVES  
WITHIN A DEVELOPMENT PLANNING CONTEXT.  
WITH REFERENCE TO THE VENEZUELAN CASE.

by

Arturo J. Bencosme  
Lecturer,  
Infrastructure Planning Program

ABSTRACT

This paper describes a System Dynamics approach to the problem of linking national and regional transportation to other components of national development plans. A framework of interactions among social, economic, and transportation variables is constructed based on the proposed approach. Such a framework facilitates the analysis of the reciprocal impacts of transportation infrastructure and the socio-economic environment, thus providing an important input to the process of transportation policy making for development. Specific references are made to Venezuela, where a serious effort is being made to explicitly incorporate a transportation investment strategy into the national development plan.

March 22, 1981.