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REVIEW

Sustainable transportation in the US: A review of proposals, policies, and programs since 2000

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Transportation;
Sustainability;
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Abstract

This paper reviews the research, policy proposals and recommendations, implemented policies, and programs on sustainable transportation since 2000, with regional focus on the US, using the UK (related to the European Union if appropriate), and Canada as references. The paper finds that the concept of sustainable transportation has been given increased attention in all places. There are significant variances between the research, policy proposal, and implementation. Efforts made towards sustainable transportation, and the focus of the efforts at entities within and outside the US also vary notably. As a whole, the US did more research on sustainable transportation than the reference countries and it even undertook several studies of sustainable transportation practices in West Europe. The US federal government is less aggressive than its foreign counterparts in marketing and implementing sustainable transportation. This is evidenced by a lack of overarching federal policy (mandate) on and a universal working definition for sustainable transportation, and absence of a gateway and dedicated website to market and disseminate the idea of sustainable development in general and sustainable transportation in particular.

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1. Introduction

Past literature on the sustainability issue in the US has focused more on local-level policies and initiatives than on federal-level ones. This might be due to many factors. For instance, there is a lack of governmental mandates for sustainability actions (Deakin, 2002), and there are (rightly so) more local sustainability initiatives and programs than federal ones (see Portney, 2002, 2003; Chifos, 2001, 2007; Public Technology, Inc., 1996; Black and Sato, 2007).¹ Regardless of the underlying causes, the relative paucity of literature on federal-level sustainability policy is a fact (Chifos, 2007). To effectively implement sustainable transportation policies, however, national (federal) governments are major driving forces that “bridge the gap between policy recommendations and their implementation” (European Conference of Ministers of Transport [ECMT], 2002, p. 3). Bearing this fact in mind, I undertake three tasks in this paper. The first task is to review existing definitions of sustainable transportation to identify the commonalities among them. Fulfilling this task would help us delimit, select, and prioritize any “sustainable transportation” research, policies, or programs. The second task is to review goals, visions, and strategies for sustainable transportation at the national level in the US and two reference countries according to the “commonalities” identified. Accomplishing this task somewhat help fill the gap in existing literature on sustainable transportation. The third task is to explore whether there are significant gaps among what have been researched, proposed, and adopted, by making comparisons between the US and the reference countries and between what was proposed and what was implemented. The purpose of this task is to provide guides about consolidating discrete efforts in sustainable transportation research, policy analysis, and implementation.

To facilitate efficient completion of these tasks I have limited the regional focus and time frame for the studies. The US is the primary focus, but special attention is also given to Canada, and the UK (sometimes expanded to the European Union [EU], when required). The Canadian and UK cases were selected as

“reference countries” to engage the US scholarship and to help identify gaps in the sustainable transportation efforts undertaken in the US. Canada and the UK are more comparable to the US than most other developed countries, politically, culturally, and economically. Thus they should be good subjects for comparisons or good references, particularly when one wants to find transferrable knowledge for the US. Regarding time frame, literature and efforts after 2000 were accorded the most importance, as they reflect the most recent trends or practices and would represent some of the most valuable knowledge and experiences about sustainable transportation.

This paper is organized into five sections. Section 2 discusses the genesis of “sustainable transportation” and how “sustainable transportation” has been defined. The discussion provides some common ground for ensuing summaries of existing goals, visions, and strategies about sustainable transportation. Section 3 reviews existing goals, visions and strategies about sustainable transportation by individuals. It is assumed that since individual research and proposals are often not bounded by as many political constraints facing government agencies or other entities, individuals should be able to think more boldly. Thus they should have advanced the most innovative and comprehensive ideas about sustainable transportation. Section 4 reviews goals, visions, and strategies proposed by high-profile entities, including NGOs, international banks, think tanks, intergovernmental organizations, national governments, and governmental agencies. It is argued that what was prescribed by these entities is generally closer to actions than those by individuals or is actual implementation of ideas about sustainable transportation. Section 5 discusses potential gaps in sustainable transportation efforts undertaken in the US. Section 6 concludes the paper, presenting the overall findings and discussing future research directions.

2. Defining sustainable transportation

An important task of sustainable transportation research and policy is reaching an agreed-upon definition of “sustainable transportation”. Without such a definition, we simply do not know where to start, let alone to persuade others into pursuing sustainable transportation. Specifically, if decision-makers do not know clearly what they mean by “sustainable

¹Public Technology, Inc. (1996) and Portney (2002, 2003) identified hundreds of local-level programs while Chifos (2001, 2007) indicate that there are only a few federal-level programs.

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