A long-term view of sustainability

“Sustainability” has become a priority for transportation agencies and society as a whole, even though the concept is not always well understood. An NCHRP report helps transportation agencies take a holistic approach to supporting a sustainable environment, economy, and society.

Part of the whole
In the past, DOTs often viewed sustainability as a set of discrete tasks, such as meeting a clean air regulation or avoiding damage to a body of water. That changed with NCHRP Report 750, Volume 4: Sustainability as an Organizing Principle for Transportation Agencies. “This report reframes the discussion about sustainability,” says Lori Sundstrom, senior program officer for NCHRP. “It examines how a DOT can contribute to a sustainable society.

NCHRP Report 750, Volume 4, by John Wiegmann and Victoria Adams of Booz Allen Hamilton, examines sustainability from the viewpoint of society as a whole and how transportation agencies fit into it. While DOTs are not responsible for solving all of the sustainability challenges society faces, they do need to look to society for cues about agency priorities. “It’s not simply a matter of doing projects in a sustainable way, but doing the right project in the right way,” Sundstrom says.

The triple bottom line
As described in NCHRP Report 750, Volume 4, sustainability encompasses the “triple bottom line” (TBL) of environmental, economic, and social sustainability. “That provides a unifying objective for competing DOT priorities,” says Gary McVoy, a retired New York State DOT executive who now serves as a consultant helping states implement these concepts. “Sustainability isn’t just another thing. It’s the thing. Considering the triple bottom line helps agencies ensure that their programs contribute to a strong economy, a healthy environment, and a vigorous society in a manner that garners public support.”

NYSDOT has several established sustainability programs. Among these are teams that have been formed to assess the sustainability of different types of infrastructure from an asset management standpoint, as well as GreenLITES (www.dot.ny.gov/programs/greenlites), a certification program designed to ensure projects are scoped and designed in a sustainable manner.

NCHRP Report 750, Volume 4 helped to reframe New York State’s priorities. “We have to balance not only the infrastructure’s condition, but also its location and how it serves the economy and quality of life,” says Paul Krekeler, GreenLITES program manager.

Levels of sustainability
A valuable tool for assessing progress is the TBL Maturity Assessment Tool that appears as Appendix F of the report. Using the tool, agencies can evaluate themselves in eight functional areas, such as planning or outreach and communications. These ratings can be combined to determine an overall maturity level, from Level 0, “Safe Mobility” to Level 4, “TBL Sustainability.” NYSDOT used the tool to develop a staff survey to visualize its current maturity status and spur discussion on how to progress (www.surveymonkey.com/r/Z79993R).

Another agency, California Department of Transportation, was in the process of developing a new mission and sustainability goals when NCHRP Report 750, Volume 4 was released. “Caltrans’ approach involves collaboration with its partner agencies to help one another make decisions as a way to achieve true sustainability,” says Steve Cliff, formerly assistant director of sustainability for Caltrans. “That moves us farther along on the maturity model scale and gets us toward true triple bottom line.”

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The agency also established a sustainability e-mail newsletter that has more than 22,000 subscribers from Caltrans, state and local agencies, partners, and the public.

“Work is ongoing nationally as well,” Cliff adds. “DOTs and other stakeholders are working to achieve the triple bottom line for all modes of transportation through the strategic planning of the TRB Committee on Transportation and Sustainability, ADD40.”

A total of six volumes of NCHRP Report 750 make up the Foresight Series, an ambitious research effort examining long-term strategic issues for transportation agencies. See www.trb.org/NCHRP750/ForesightReport750SeriesReports.aspx for the series reports and more guidance.

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