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In This Section

Research

The DOT Climate Change Center and the DOT National Transportation Library maintain the Transportation and Climate Change Clearinghouse, which is a curated collection of information on transportation and climate change issues. It includes information on greenhouse gas inventories, analytic methods and tools, greenhouse gas reduction strategies, potential impacts of climate change on transportation infrastructure, and approaches for integrating climate change considerations into transportation decision making. The Clearinghouse has two components:

1. Full text articles on the topic of climate change and transportation available through the Transportation and Climate Change Clearinghouse Collection maintained through ROSA-P, the National Transportation Library's Repository and Open Science Access Portal. This collection can be filtered by keyword and sorted by relevance or publication date. ROSA-P's collection has a specific focus on information produced or funded by USDOT, state DOTs, and other transportation organizations.

2. Monthly bibliographies of a broader set of climate change and transportation articles (not only those for which we have full text but also those for which only the citation and abstract are publicly available).

The DOT RD&T Strategic Plan 2022-2026 sets USDOT's research agenda and grand challenge for Climate and Sustainability along with four other goals.

USDOT, in partnership with the Federation of American Scientists (FAS), hosted a "Workshop on Crafting a National Climate Change Research Agenda" at the 2025 Annual Meeting of the Transportation Research Board (TRB). This readout captures key themes, insights, and recommendations from the workshop.

USDOT provides funding to University Transportation Centers (UTCs) to conduct research on a variety of transportation related topics. The UTC's with a focus on climate change include:

- National Center for Sustainable Transportation (Lead: University of California, Davis)
- Center for Climate-Smart Transportation (Lead: Johns Hopkins University)
- Center for Advancing Research in Transportation Emissions, Energy, and Health – (Lead: Texas A&M)
- Environmentally Responsible Transportation Center for Communities of Concern - (Lead: University of Missouri Kansas City)

The Federal Aviation Administration Air Transportation Centers of Excellence program funds research on aviation technologies. ASCENT – The Aviation Sustainability Center, co-led by Washington State University and the Massachusetts Institute of Technology, is exploring ways to produce sustainable aviation fuels at commercial scale.

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U.S. DEPARTMENT OF TRANSPORTATION
1200 New Jersey Avenue, SE
Washington, DC 20590
855-368-4200

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