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Tending the infrastructure commons: Ensuring the sustainability of our vital public systems

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Abstract

It is by now well recognized that civil infrastructure systems are essential in providing the range of services generally considered necessary to support a nation's economic well-being and quality of life. Consequently, it is of the utmost importance to government, business, and the general populace that these services are sustained over the long term by periodic replenishment of the physical systems that deliver them. This has proven challenging for several reasons. First, civil infrastructures do not all lie within the public domain. Second, infrastructures are complex systems that are vulnerable to failures or service degradations in other systems because of their interconnected and interdependent natures. Third, despite the obvious importance of reliable and resilient systems to our collective social, economic, and political well-being,

it has been difficult to fund the necessary maintenance and capital improvements. Deciding what levels of reliability should be provided and who should pay for it are not simple questions to be addressed solely by service providers, customers, or government regulators. This paper will present the concept of an infrastructure commons and recommend some initial actions that the federal government could take to ensure that the national ‘public good’ aspect of civil is preserved and enhanced. These actions include the beginning of an informed and serious dialogue between the public and private sectors, building coalitions for action among stakeholders in the governance process, and exploring alternative mechanisms for ensuring dependable and sustainable resource streams.

Keywords:

Sustainable infrastructure | Supply chains | Infrastructure commons

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