

The Disbenefits of New Road Investment

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The notion that building new roads serves as a catalyst for economic growth and a remedy for traffic congestion is a widely held belief. However, a closer examination reveals that the reality is far more nuanced and, in many cases, contrary to these optimistic assumptions. This paper explores the disbenefits of new road investments, highlighting the lack of conclusive evidence supporting their economic benefits, their failure to address congestion effectively, and the adverse impacts they have on local areas, including pollution, congestion, and property values.

Lack of Evidence for Economic Growth

One of the most common justifications for new road investments is the anticipated economic growth they are supposed to generate. Proponents argue that improved transportation infrastructure attracts businesses, facilitates commerce, and ultimately boosts the local economy. However, empirical studies present a mixed picture. The correlation between new roads and economic development is inconsistent and highly context-dependent. In some regions, roads may spur growth, but in many others, the expected economic benefits do not materialize.

In fact, the allocation of significant resources to road construction can be seen as a misallocation, diverting funds from potentially more productive investments such as education, healthcare, and public transportation. These sectors not only have the potential to improve quality of life directly but also contribute to sustainable economic growth. Thus, the economic argument for new roads is not as robust as it is often portrayed.

Failure to Solve Congestion Problems

Another major rationale for new road construction is to alleviate traffic congestion. Yet, the phenomenon of “induced demand” suggests otherwise. When road capacity is increased, the initial reduction in congestion tends to be temporary. Enhanced capacity attracts more drivers, eventually leading to

congestion levels that are as bad as, or even worse than, before the road was expanded. This cycle indicates that new roads are not a sustainable solution to traffic problems. Instead, they can exacerbate the very issues they were meant to resolve, leading to a never-ending demand for more infrastructure and perpetuating the cycle of congestion and expansion.

Environmental and Social Impact

The environmental ramifications of new road construction are significant and often detrimental. Increased traffic volumes lead to higher emissions of pollutants, deteriorating air quality and posing serious health risks to nearby residents, including respiratory and cardiovascular diseases. Noise pollution also increases, contributing to a lower quality of life for those living near busy roads. Moreover, the construction process itself can cause substantial environmental damage, including habitat destruction and fragmentation, which harms wildlife and reduces biodiversity.

Socially, new roads can disrupt local communities. The displacement of residents and businesses during road construction can dismantle social networks and local economies. Additionally, the impact on property values is uneven. While some properties may see an increase in value due to improved accessibility, many others experience a decline because of the negative externalities associated with proximity to busy roads, such as noise and air pollution. This can exacerbate social inequalities, as wealthier areas may benefit from new infrastructure while less affluent neighborhoods suffer the consequences.

A Sustainable Alternative

Given these substantial drawbacks, it is imperative to consider alternative approaches that are more sustainable and equitable. Investing in public transportation can be a more effective way to reduce congestion and lower emissions while providing mobility options that are accessible to all residents. Urban planning that encourages walking, cycling, and the use of green spaces can enhance the quality of life and promote healthier, more vibrant communities.

In conclusion, the case for new road investments is fraught with significant disbenefits. The anticipated economic growth is often elusive, the intended relief from congestion is temporary at best, and the environmental and social costs are

substantial. By redirecting our focus towards sustainable transportation solutions, we can foster economic development that is not only robust but also environmentally and socially responsible. It is crucial that we move forward with policies that prioritize long-term benefits for all members of society, ensuring a healthier and more equitable future.

Sources

1. Duranton, Gilles, and Matthew A. Turner. "The Fundamental Law of Road Congestion: Evidence from US Cities." *American Economic Review*, vol. 101, no. 6, 2011, pp. 2616-2652.**

- This study explores the concept of induced demand and shows that increased road capacity leads to proportional increases in traffic.

2. Litman, Todd. "Generated Traffic and Induced Travel: Implications for Transport Planning." Victoria Transport Policy Institute, 2021.**

- This report discusses how new road capacity induces additional travel, often negating congestion relief benefits.

3. Cervero, Robert, and Mark Hansen. "Induced Travel Demand and Induced Road Investment: A Simultaneous Equation Analysis." *Journal of Transport Economics and Policy*, vol. 36, no. 3, 2002, pp. 469-490.**

- An analysis of the relationship between road investments and induced travel demand, emphasizing the limited effectiveness of road expansions in solving congestion.

4. Hymel, Kent M., Kenneth A. Small, and Kurt Van Dender. "Induced Demand and Rebound Effects in Road Transport." *Transportation Research Part B: Methodological*, vol. 44, no. 10, 2010, pp. 1220-1241.**

- This paper investigates the induced demand effects and rebound effects resulting from road transport infrastructure.

5. Transportation Research Board. "The Transportation and Economic Development Report." National Academies Press, 1996.**

- This report examines the link between transportation investments and economic development, providing a critical view on the assumed benefits.

6. Santos, Georgina, and Erik T. Verhoef. "Road Congestion Pricing." Handbook of Transport Systems and Traffic Control, 2011.**

- Discusses various approaches to managing road congestion, including the limitations of new road construction.

7. European Environment Agency. "Air Quality in Europe - 2020 Report." EEA Report No 9/2020.**

- Provides insights into the impacts of road traffic on air quality and public health in Europe.

8. Bocarejo, Juan Pablo, and Darío Oviedo. "Transport Accessibility and Social Inequities: A Tool for Identification of Mobility Needs and Evaluation of Transport Investments." Journal of Transport Geography, vol. 24, 2012, pp. 142-154.**

- This paper highlights the social equity considerations in transport investments, stressing the need for inclusive planning.

9. World Health Organization. "Environmental Noise Guidelines for the European Region." WHO Regional Office for Europe, 2018.**

- Details the health impacts of noise pollution, particularly from road traffic.

10. Gössling, Stefan, and Andy S. Choi. "Transport Transitions in Copenhagen: Comparing the Cost of Cars and Bicycles." Ecological Economics, vol. 113, 2015, pp. 106-113.**

- Analyzes the economic and environmental benefits of alternative transportation modes compared to road expansion.