



Taming Traffic

EXECUTIVE SUMMARY



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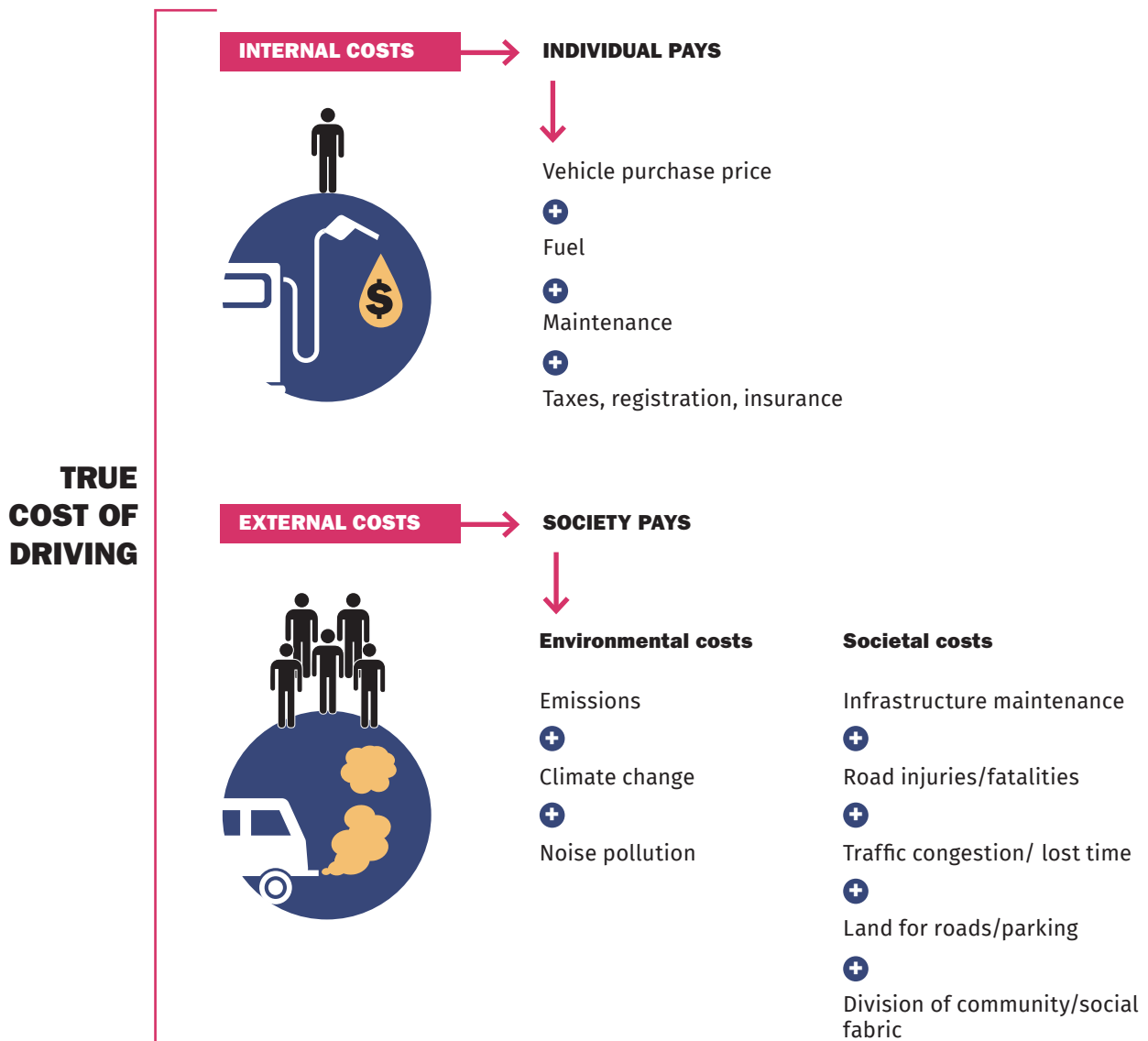


Driving is underpriced and demand for vehicles is growing.

Underpricing road use has led to a disproportionate dependence on low-occupancy private vehicle travel in cities around the world. This has led to climate change, congestion, pollution, and sprawl, resulting in serious negative consequences for accessibility, the environment, and quality of life. These harmful outcomes have disproportionately affected the most vulnerable populations, including the poor, older adults, children, and people with disabilities.

Demand for and use of private cars is growing worldwide, contributing to major challenges like poor air quality, traffic injuries, and climate change, especially in places experiencing rapid urbanization. Population growth and uptake of vehicles, coupled with inefficient public transportation and land use planning, make traffic a complex problem to manage. While many city leaders recognize that traffic is a problem, they too often focus on road expansions and new highways as the solutions. Not only can this make congestion worse through induced demand¹ but it does little to address the many other negative impacts of driving.

Instead, cities must consider traffic reduction strategies that prioritize people and well-being and that require drivers to consider environmental and societal costs in addition to internal costs when choosing to drive.



Tackling this challenge is even more critical now: Demand for private vehicles is growing amid concerns about crowded public transport and other shared mobility options in response to the COVID-19 pandemic. As cities in China and Europe returned to pre-pandemic travel, the use of private vehicles escalated—and with it, came congestion, air pollution, and all the environmental and societal costs brought about by driving. Cities that act now—before vehicle volumes return to or surpass previous levels—have the opportunity to curb the growing demand for driving by prioritizing street space and even generating revenue that can support public transport, walking, cycling, and other sustainable modes.

WHAT CAN CITIES DO TO REDUCE TRAFFIC?

City leaders must consider strategies to curb the use of vehicles and reduce traffic.

There are a number of options, often discussed as push (away from driving) and pull (toward sustainable transport) measures, that work well together to provide viable alternatives to driving. In this paper we examine the following “push” measures that have the potential to reduce traffic and help cities achieve related sustainability goals.

■ REALLOCATE ROAD SPACE FOR PEOPLE

■ PRICE AND MANAGE PARKING

■ DESIGNATE ZONES WITH VEHICLE RESTRICTIONS

TAMING TRAFFIC

Prioritizing people over cars makes streets calmer, cleaner, and safer for all.

Reallocate road space for people

**LOW
CAPACITY
NEEDED**

STRATEGIES

Pedestrianization

Transit malls

Complete streets

Redesign streets so that the majority of space is dedicated to pedestrians, cyclists, and public transport.



Sustainable modes become faster, safer, and more convenient than driving.

STRATEGIES



Price and manage parking

MODERATE
CAPACITY
NEEDED

- On-street demand based pricing
- Off-street parking maximums
- Commercial parking tax

Price on-street parking and reduce off-street parking supply.

Parking, priced to reflect its true cost, becomes less desirable compared to walking, cycling, or public transport.

Revenues cover program operations and fund sustainable transport improvements.

Designate zones with vehicle restrictions

HIGH
CAPACITY
NEEDED

STRATEGIES

- Low emission zones
- Congestion pricing
- Limited traffic zones

Restrict access or charge vehicles a fee to enter a designated zone.

Priced to reflect its true cost, driving declines.

Revenues cover program operations and fund sustainable transport improvements.

VISIT [ITDP.ORG/TAMINGTRAFFIC](https://www.itdp.org/tamingtraffic) TO LEARN MORE

WHAT DOES A SUCCESSFUL TRAFFIC REDUCTION STRATEGY LOOK LIKE?

This paper helps decision makers better understand key approaches to reducing traffic and then select strategies that align with their goals and resources. We evaluate traffic reduction strategies based on their ability to achieve the following outcomes:



REDUCES TRAFFIC AND IMPROVES WELL-BEING

Elected officials, practitioners, and civil society often tout a link between traffic reduction and improved well-being in cities. We evaluate how each strategy contributes to five outcomes that many cities have identified as resulting in a more livable urban environment.



ADVANCES SUSTAINABLE TRANSPORT GOALS

Successful traffic reduction strategies reduce demand for driving—particularly of single-occupancy, high-polluting vehicles during peak times—and generate a shift toward sustainable, equitable transportation modes. We map how traffic reduction strategies advance the sustainable transport goals of a) improving access, b) maintaining safety, c) reducing harm to the environment and human health, and d) using resources efficiently, and we find that congestion pricing and reallocation of road space are the most successful strategies.



CONSIDERS CAPACITY NEEDS

The capacity required to implement traffic reduction policies may impact the decision to adopt certain policies over others. In assessing capacity requirements, we consider potential privacy concerns, political complexity, and capital and technological needs for each strategy. We find that emissions-based and congestion pricing schemes require the most capacity, while commercial parking taxes and road space reallocation can be implemented even if capacity is relatively low.

DESIGNING EQUITABLE SOLUTIONS

Traffic reduction strategies must be designed in a way that ensures equitable outcomes across socioeconomic groups. No strategy is inherently inequitable; instead, equity can be achieved (or not) through careful, thoughtful design decisions. Fee-based approaches, like congestion pricing or pricing on-street parking, generate revenue which, if allocated properly, can reduce costs and improve the quality of public transportation, walking, and cycling, which is more equitable than the status quo of not being charged to drive.

EVALUATION OF TRAFFIC REDUCTION STRATEGIES

		Link to well-being and sustainability*	Capacity required for effective implementation
		↓	↓
PARKING REFORMS	DEMAND-BASED PRICING	MED	MED
	OFF-STREET PARKING REFORMS	LOW	
COMMERCIAL PARKING TAX		LOW	LOW
EMISSIONS PRICING AND CONGESTION PRICING	LOW EMISSION ZONE	LOW	HIGH
		HIGH	
REALLOCATING ROAD SPACE FOR PEOPLE		HIGH	LOW
LIMITED TRAFFIC ZONE	ZERO EMISSION ZONE	MED	MED

*Evaluation considers the extent to which each strategy contributes to targets for well-being and the sustainable transport goals.

KEY TAKEAWAYS

TRAFFIC REDUCTION IS NOT A ONE-SIZE-FITS-ALL POLICY

THE WHOLE IS GREATER THAN THE SUM OF ITS PARTS

Implementing multiple traffic reduction strategies together maximizes impact and reduces potential challenges related to political will and equity.

Designing a comprehensive traffic reduction policy may also allow for more transparency around the use of revenues from fee-based policies to support other interventions, such as road space reallocation, which not only restricts driving but improves conditions for non-vehicle users.

PEOPLE-FOCUSED STREETS REDUCE TRAFFIC AND MORE EQUITABLY DISTRIBUTE SPACE AND PRIORITY

Reallocating road space for people over cars should be considered as part of a comprehensive traffic reduction strategy, especially in cities with limited capacity.

Road space reallocation is not always a top-of-mind strategy for traffic reduction, though it has been shown to generate mode shift toward sustainable transport. Additionally, in places where mode share of private vehicles is low, as is often the case in low and lower middle income cities, reallocating road space for people restricts private vehicle use while improving safety and comfort for the majority of people who already travel by foot, bicycle, or public transport.

TRAFFIC REDUCTION AND SUSTAINABLE TRANSPORT IMPROVEMENTS GO HAND IN HAND

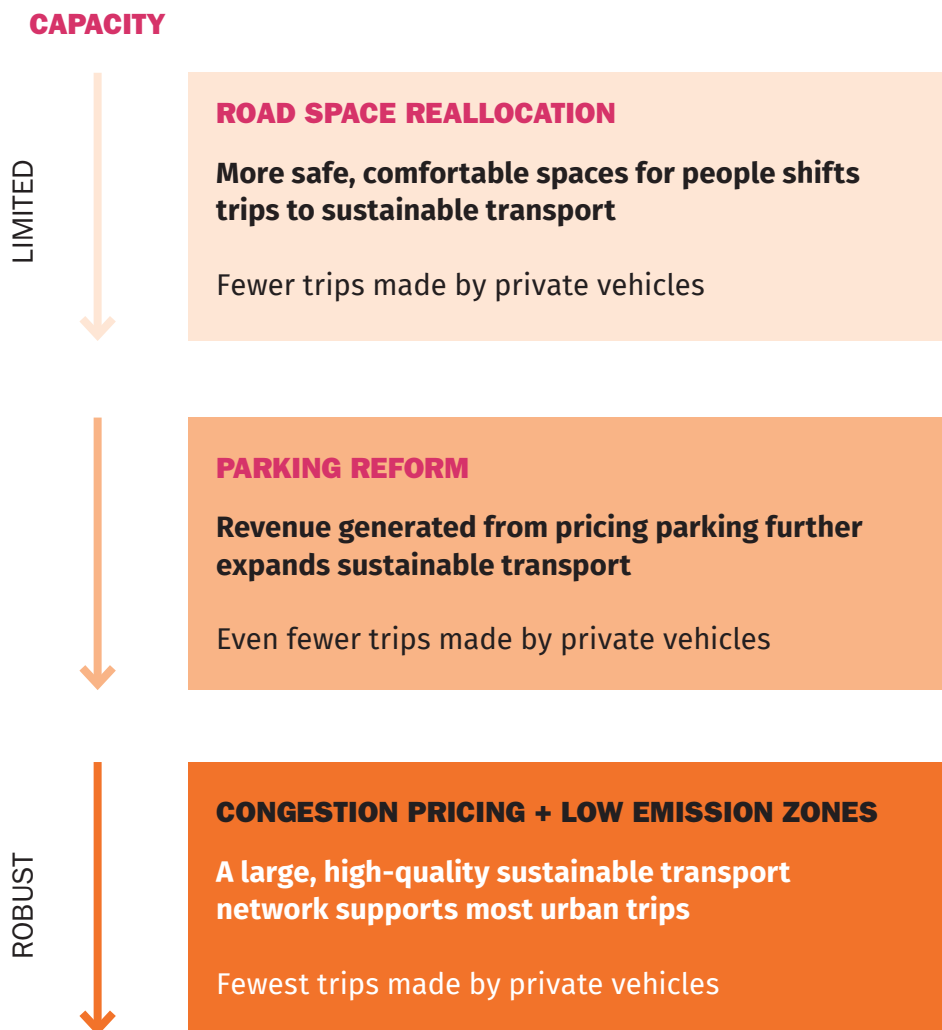
The presence of alternative transportation options is critical, particularly when most or all private vehicles are restricted from a zone.

Impacts from any traffic reduction strategy will be bolstered by improvements to cycling, walking, and public transport facilities. Without such alternatives, those who can continue to afford (financially or with time) to drive will do so, and those who cannot will see their mobility disproportionately limited. In addition to covering operational costs, revenues generated from fee-based strategies should directly fund local improvements to cycling, walking, and public transportation.

LOW-COST DOES NOT MEAN LOW-IMPACT

If capacity is limited, adoption of traffic reduction strategies could follow a progression.

Cities with capacity limitations should consider alternatives to high-cost, high-technology traffic reduction strategies, at least to start, as lower-cost, low-technology strategies have successfully reduced demand for driving. Road space reallocation projects can be a first step in catalyzing a shift to sustainable transport modes, followed by parking reform, which continues the momentum toward driving less and begins to generate revenue to expand sustainable transport. Once the network is large enough and capacity robust enough, high-cost, high-technology strategies like emissions-based and congestion pricing zones can be more seriously pursued.





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