



e² transport — London: The Price of Traffic

As of 2008, cities were responsible for about 80% of greenhouse gas emissions and consumed roughly 75% of the world's energy. Given that half of humanity lives in cities and that number is expected to grow to two-thirds by the year 2030, local policymakers in cities have a unique opportunity to affect the global climate crisis for better or worse. Ken Livingston, the first directly elected mayor of London, has taken advantage of that opportunity to institute a number of policies that respond to London's growth while also improving its livability.

The mayor created Transport for London (TFL), a local government body, that looks at all types of transportation including not only buses, subways, trains and motorists but also pedestrians and cyclists. TFL's findings and actions have led to the reallocation of some roadways away from automobiles to buses, pedestrians and cyclists, resulting in a more equitable use of public space.

In 2002, the mayor launched the One Hundred Public Spaces Program to create or upgrade key public spaces and improve the quality of life in London. Trafalgar Square, Parliament Square and Kensington High Street are three of the places that have benefited from an initiative to give pedestrians priority over cars. While there is slightly less space on the roads for cars, which has upset some, the increased pedestrian traffic has revived London's street life and changed the culture of the city for the better.

In 2003, against the advice of many of his advisors, Ken Livingston took a risk by implementing congestion charging in central London. According to Nicky Gavron, the Deputy Mayor of London, the idea for congestion charging in London first surfaced in 1988. In the 1990s, she commissioned a study to look at congestion charging as well as other measures like improved parking and investment in buses. While the research determined that an expansion of the public transportation system would help curb the growing congestion problem in downtown London, the notion of congestion charging -- collecting money from the motorists who cause the congestion to pay for public transportation -- was controversial.

The system requires motorists to pay £8 per day to drive within the congestion zone, which is defined by a map published by TFL. A system of cameras monitors the edges of the zone and checks the number plates of all the vehicles that enter and exit against a database of those who have paid. Vehicle owners who have not paid the proper fee receive a £120 penalty charge notice in the mail.



While there was a lot of early resistance to congestion charging, the significant expansion of the bus system, bike lanes and pedestrian sidewalks that were funded by the charge were well received. The implementation of congestion charging resulted in reductions in traffic, congestion, CO₂ emissions and the release of other pollutants and a 5% increase in the number of Londoners who use public transportation, a significant number considering that over 7.5 million people live in London.

In 2012, London will host the Olympics, which have been dubbed the Transport Games because of the significant amount of new public transportation that is being built to accommodate the athletes and spectators who will travel to and from events. It is estimated that 240,000 people will be transported each hour by rail alone. The revitalization of the Lee Valley, where the games will be held, is an enormous undertaking, but the result will be a sustainable neighborhood with green spaces, access to the Lee River, affordable housing and comprehensive public transportation. For East London, which has high unemployment rates and poor health care and is in the bottom 5% of the country in terms of socio-economics, the physical changes and new job opportunities in the neighborhood will provide an improved quality of life that is long overdue.

For more information about congestion charging in London, visit www.tfl.gov.uk/roadusers/congestioncharging/

For more information about the 2012 Olympics in London, visit www.london2012.com

For more information about the 100 public spaces program, visit www.london.gov.uk/mayor/auu/100_public_spaces.jsp



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PRE-VIEWING QUESTIONS

- 1) What is the most common form of transportation in your community? Are there bike paths and sidewalks on most roads? List all of the public transportation options available to you. If you had more options, would you use them? Why or why not?
 - 2) What different types of transportation are available in cities around the world? Which types serve the most people? Which types serve the fewest people?
 - 3) Of the types of transportation that you've thought of, which are the least harmful to the natural environment? Which are most harmful? Be specific about what types of pollution they cause, if any (e.g. noise, air).
 - 4) What role does the city government play in deciding how the citizens get around? How can the city encourage one mode of transportation over another?
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POST-VIEWING QUESTIONS

- 1) How do you think the cabbie in the video felt about the congestion charge? Is a cab driver's opinion likely to reflect the opinions of most Londoners? Why or why not? Now consider how each of the following people might feel about it:
 - a. A storeowner near a transit stop
 - b. A business owner who makes daily deliveries to central London
 - c. A public citizen who takes public transportation to work
 - d. A public citizen who drives to work
 - e. A public citizen who walks to work
 - f. A student who takes the bus to school
- 2) What effects could the Olympic Games being hosted by London in 2012 have on the citizens of East London? Use specific examples from the video to support your answer.



- 3) In the video, Nicky Gavron, the Deputy Mayor of London, refers to the Mayor of London, Ken Livingston, as courageous. Why do you think she describes him this way? What responsibilities do elected officials have to their constituents? Do you think he had the best interests of most people in mind when he decided to institute the congestion charge? Why or why not?
- 4) Based on what you saw in the video, do you think the congestion charge and the 100 public spaces program have improved the quality of life on Londoners? Why or why not? Use specific details from the video to support your answer.



NATIONAL STANDARDS FROM MCREL STANDARD

Civics

Standard 16.3 - Understands the tensions that results from citizens' desire for government services and benefits and their unwillingness to pay taxes for them.

Standard 19.5 - Understands the influence that public opinion has on public policy and the behavior of public officials

Standard 21.1 - Knows a public policy issue at the local, state, or national level well enough to identify the major groups interested in that issue and explain their respective positions

Standard 21.2 - Understands the processes by which public policy concerning a local, state, or national issue is formed and carried out

Engineering Education

Standard 14.4: Understands how societal interests, economics, ergonomics, and environmental considerations influence a solution.

Standard 17.6: Understands tradeoffs among characteristics such as safety, function, cost, ease of operation, quality of post-purchase support, and environmental impact when selecting systems for specific purposes.

Family/Consumer Sciences

Standard 4.3 - Knows methods used to conserve, preserve, and recycle resources.

Life Skills/Life Work

Standard 6.2 - Uses public transportation effectively (e.g., identifies transportation alternatives, determines transportation needs).



Science

Standard 6.2 - Knows how the amount of life an environment can support is limited by the availability of matter and energy and the ability of the ecosystem to recycle materials.

Technology

Standard 4.5 - Knows that since there is no such thing as a perfect design, trade-offs of one criterion for another must occur to find an optimized solution.

Standard 4.6 - Knows that a design involves different design factors (e.g., ergonomics, maintenance and repair, environmental concerns) and design principles (e.g., flexibility, proportion, function).

Standard 6.6 - Knows that modern transportation systems are diverse (allowing humans to combine types of transportation for the most direct and convenient route), intelligent (requiring coordinated subsystems, such as a traffic light system), and are necessary in the functioning of most other technologies.