

CASE STUDY

A Strategy for Creating a Bicycle-Friendly City



Colombia's capital Bogota has made it safe and easy to travel by bicycle to work or school by creating a 376-kilometer grid of bike paths, called Ciclorutas.

Overview

Bogotá has created a 376-kilometer (km) grid of bicycle-only lanes to promote cycling as a low-cost, zero-emission means of transport in the traffic-riddled city. The Ciclorutas or bicycle routes interconnect the city center, residential areas, TransMilenio bus stations, and parks and attractions.

Ciclorutas have made it safe and faster to travel by bicycle in Bogotá. Average speed on a Cicloruta is 17 kilometers per hour (km/h), compared with 13 km/h for public transit during the rush hour. As a result, bicycle usage has increased to 5% by 2010 from less than 1%. The city's transportation department estimates that about 450,000 trips are made on the bicycle routes every day.

Project snapshot

<p>Dates</p>	<ul style="list-style-type: none"> • 1996: Start of project under Mayor Antanas Mockus • 1998: Bogotá's 1998-2001 Development Plan - Under Mayor Enrique Peñalosa, CicloRuta project is an integral part of the plan under the Mobility chapter. • 1999: Cycle Routes Master Plan • 2000: 180 km of bike paths • 2001: Expansion - Cicloruta expansion plan launched for Secondary Network • 2006: Mobility Master Plan • 2011: Continued expansion
<p>Cost</p>	<ul style="list-style-type: none"> • \$50.25 million: Initial investment for the study, design, and construction in 1996 • \$147,000: Initial cost per kilometer for construction in 1996 • \$2 million (\$2.1 million in 2012): The city of Bogotá spent for maintenance of the CicloRuta network in 2010
<p>Institutions and Stakeholders</p>	<p>Executing agency</p> <ul style="list-style-type: none"> • Mayor's Office <p>Financing</p> <ul style="list-style-type: none"> • City government: Grant from the World Bank in 1996 for the first CicloRuta lanes <p>Management</p> <ul style="list-style-type: none"> • Instituto de Desarrollo Urbano: IDU, Urban Planning Department in English

Context

Cycling is a popular sport and recreational activity in Colombia. In Bogotá, more than half of households own a bicycle. Cyclists and pedestrians reclaim the city's streets from motorists during the Ciclovía, or car-free Sundays.

Institutionalizing the Ciclovía as a citywide, weekly event has helped bring about probicycle policies in urban planning and design. These include the construction of the CicloRutas.



Cyclists and pedestrians take

to the streets during the Ciclovía, or car-free Sundays.

Challenge

Lack of transportation and road congestion

Bogotá needed to provide affordable and reliable modes of transport to a fast-growing population—about eight million people as of last count. The number of cars on the road was increasing, but most Bogotanos do not own a car. Many traveled by bus, which was often overcrowded and unreliable.

The city also faced the twin problems of traffic congestion and vehicular pollution, which were affecting public health and the environment.

Lack of space for other road users

Like in most cities, Bogotá's urban planners designed roads for motor vehicles—not for walking or cycling. There was a lack of pedestrian and bicycle lanes. There was a high incidence of road accidents involving pedestrians and cyclists.

Solutions

Promote the bicycle as a practical mode of transport

Bogotá put in place the infrastructure and policies needed to promote cycling as a low-cost, convenient transport alternative to motor vehicles. Bicycles were included in the city's urban master plan and transport strategy.

As part of the plan, the city government built the CicloRuta system, which now has three cycle route networks. The Main Network links the city center and the most populated residential areas, and connects with the Secondary Network. The Secondary Network connects residential areas, parks, and attractions, and provides links to TransMilenio, the city's bus rapid transit (BRT) system. Guarded bicycle parking facilities were provided at the TransMilenio stations. The Complementary Network

comprises bike paths that run along riverbanks and wetlands surrounding the city, and links to recreational areas and external routes.

Improve road conditions for walking and cycling

In addition to bike paths along major roads, the city government widened sidewalks for pedestrians and opened public spaces for walking and cycling. It built the Alameda el Porvenir, a 17-km promenade, in a low-income neighborhood, connecting residents to schools, parks, day care centers, and a library.

The government rejected a plan to build a multilane highway. In its place, it developed the Juan Amarillo Greenway, a 45-km park and bike path, which connects affluent parts of the city with poor areas.

Control the number of motor vehicles on the road

Providing segregated lanes for bicycles and buses reduced the road space for motor vehicles. The government also limited car use in the city during rush hour on weekdays through Pico y Placa or license plate restrictions, and the Ciclovía car-free Sundays and public holidays.

[View map.](#)



Image courtesy of Prime Networks

The city government widened sidewalks for pedestrians and opened public spaces for walking and cycling.



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? Bogotá made it easier to travel by bicycle throughout the city not just by putting in place bicycle lanes but also facilities such as parking areas near bus stations.

Numbers and facts

376 km bicycle lanes constructed

Low-cost transportation network to low-income residents

2 bikes number of bikes per home in Bogotá, roughly

Results

VIDEO: Interview with project proponents and/or beneficiaries.

Key statistics

5% use of bicycle for transportation increase from less than 1% in 10 years

450,000 daily trips Ciclorutas supports

17 km/h average speed on Ciclorutas as opposed to 13 km/h for public transit

36,600 tons carbon dioxide emissions reduction in over 10 years

\$165 a month the average family saves by using Ciclorutas

Significant drop in bicycle-related deaths and injuries because of increased use of Ciclorutas

Lessons

Integrate the bicycle into the public transport system

The Cicloruta system is part of a long-term sustainable transport plan that prioritizes mass transit and nonmotorized modes of transport over private vehicles.

Design for local conditions

The bike paths were designed according to the topography of the city, which includes wetlands, waterways, hills, and manmade structures, such as bridges and parks. It was also necessary to build segregated bicycle lanes, which from the city's experience, gave better protection to cyclists than the painted bicycle lanes.

Political will is critical to the success of the project

Building over 370 km of bike paths through a traffic-congested city was no mean feat. It took more than

10 years and several city administrations for the current CicloRuta system to be put in place.

Citizens can act as powerful agents of change

The Ciclovía, which was started by bicycle activists, has helped bring about probicycle policies in Bogota. It has also given rise to advocacy groups, such as Ciclopaseo de los Miércoles and Mejor en Bici, which promote cycling as an alternative means of transport in the city.



The government prioritized

mass transit and nonmotorized modes of transport over private vehicles.



Advocacy groups help promote

the use of bicycles as a low-cost, eco-friendly transport in the city.

Resources

- C40 Cities. 2011. *Case Study: Bogotá's CicloRuta Is One of the Most Comprehensive Cycling Systems in the World.*
- Ciclovía Recreativa. *Ciclovía Recreativa Implementation and Advocacy Manual.*
- C.F. Pardo. 2012. *Chapter 4: Sustainable Urban Transport.* In M. Peck, ed. *Shanghai Manual: A Guide for Sustainable Urban Development in the 21st Century.* New York: United Nations Department of Economic and Social Affairs.
- D. Hidalgo. 2014. *Urbanism Hall of Fame: Enrique Peñalosa Leads Bogotá's Inclusive Urban Transformation.* The City Fix. 18 December.
- Institute for Transportation and Development Policy. 2013. ADB-CAF South-South Cooperation Virtual Study Tour Final Report. Unpublished.
- R.E. Berney. 2008. *The Pedagogical City: How Bogotá, Colombia, is Reshaping the Role of Public.* A dissertation submitted to the University of California, Berkeley.
- Secretaria Distrital de Movilidad (District Department of Transportation). *Movílcese en Bogotá.*

Related links

Case Study: Bogotá's TransMilenio Strategy: Putting People First

Case Study: How Ciclovía's Car-Free Days Give Bogotá Room to Breathe



Institute for Transportation and Development Policy

This case study is from a series of virtual study tours created by The Institute for Transportation and Development Policy (ITDP) as part of a South-South Cooperation Project that facilitates the sharing of

best practices in sustainable transport.

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