
#UN LUGAR COMO EL HOGAR
Indicador de
CAMINABILIDAD
para la ciudad
Conoce los detalles de la investigación que adelanta el Observatorio del Espacio Público.
Observatorio del espacio público de Bogotá
ALCALDÍA MAYOR DE BOGOTÁ D.C.
DEPARTAMENTO ADMINISTRATIVO DE LA DEFENSORÍA DEL ESPACIO PÚBLICO
BOGOTÁ

Objective of the Study

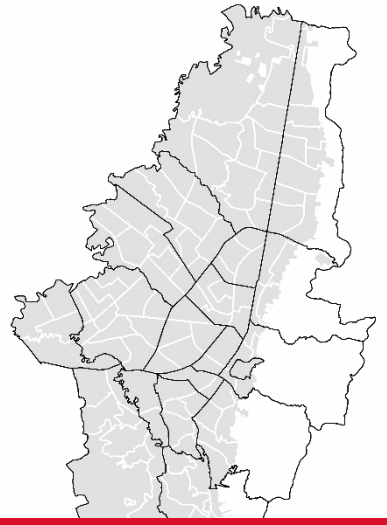
The objective of the indicator is to analyze the friendliness of the sidewalks in the area of UPZ Las Nieves for pedestrians.

Walkability

This term is used to assess how friendly certain area is for walking and for doing most daily activities on foot.

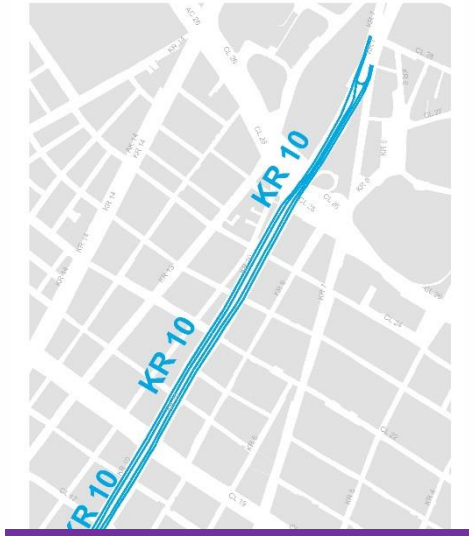
Walkability

Walkability analysis are conducted in the following scales:



At city or metropolitan area level

At neighborhood or area level



At street level

Bogota
UPZ Las Nieves

Case Study

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Location of the Study's Area

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Bogota (UPZ Las Nieves)

The analysis required generating a network of sidewalks and pedestrian crossings, including traffic light crossings and crosswalks.

Bogota (UPZ Las Nieves)

Variables

Sidewalks' length and width

Distance to the public transportation system

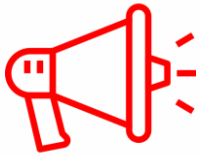
Mixed uses

Typology of the street

Intersections / crossings

Lighting

Shade and shelter



Noise pollution

There variables were identified reviewing several studies and analyses of walkability conducted by ITDP.

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Sidewalks' Width

Metric	Width of the sidewalk's circulation space and adequation to the existing flow of pedestrians	
Score 3	**Optimum**	Minimum width > 5 m One exclusive way for pedestrians (lane)
Score 2	**Good**	Minimum width ≥ 2 m < 5m
Score 1	**Sufficient**	Minimum width ≥ 1.5 m < 2m
Score 0	**Insufficient**	Width < 1.5 m

Length /Dimension of Each Segment

Metric	Lateral extension of the sidewalk's segment (equivalent to the minimum segment of the sidewalk)	
Score 3	**Optimum**	Length of the sidewalk's segment ≤ 110 m
Score 2	**Good**	of the sidewalk's segment ≤ 150 m
Score 1	**Sufficient**	of the sidewalk's segment ≤ 190 m
Score 0	**Insufficient**	of the sidewalk's segment > 190 m

Distance on Foot to the Public Transportation System

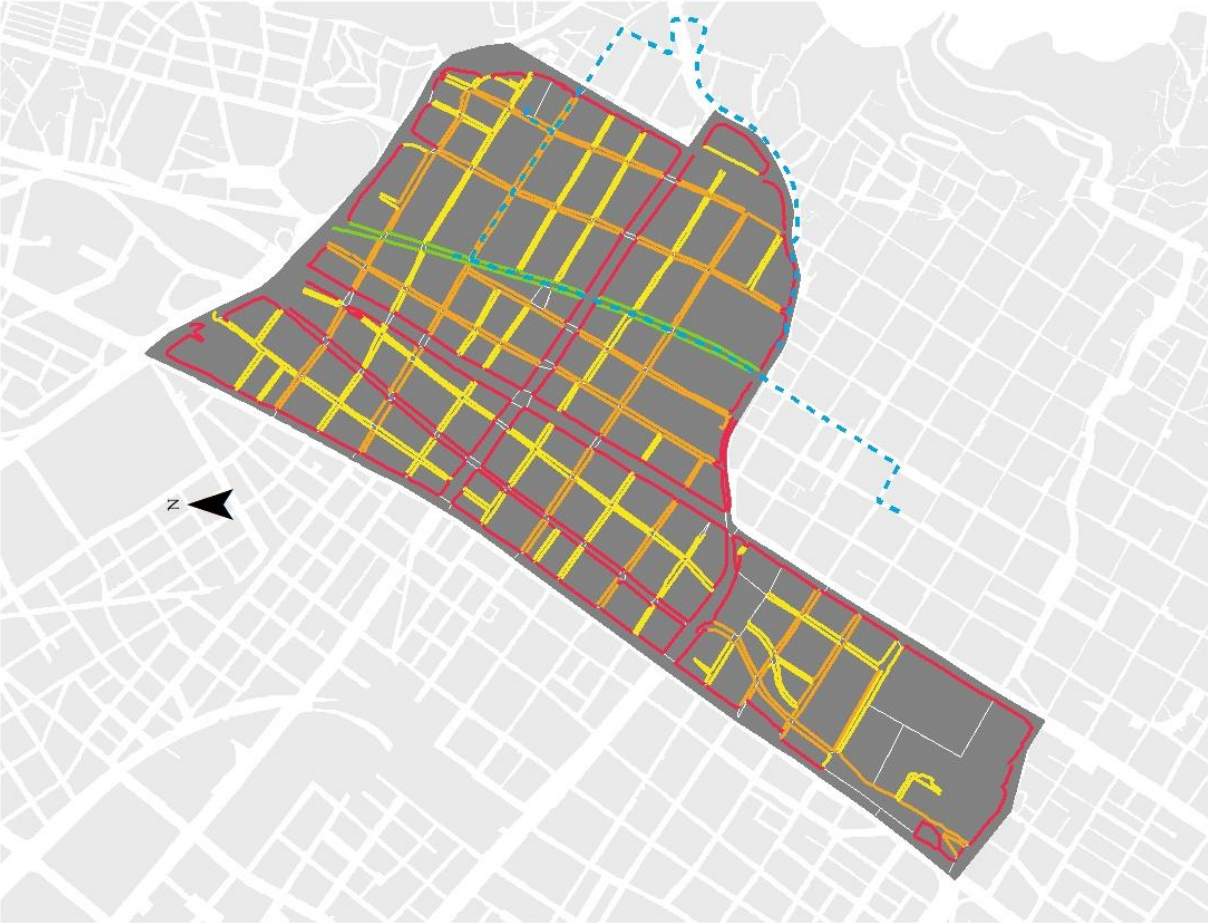
Metric	Distance on foot (in meters) to the closest station of a mid or high-capacity transportation system or other systems of collective public transportation	
Score 3	**Optimum**	Maximum distance on foot to a transportation station ≤ 100 m
Score 2	**Good**	Maximum distance on foot to a transportation station ≤ 200 m
Score 1	**Sufficient**	Maximum distance on foot to a transportation station ≤ 350 m
Score 0	**Insufficient**	Maximum distance on foot to a transportation station > 500 m

Mixed Uses

Metric		
Score 3	**Optimum**	≤ 50% of the total plots are occupied by a predominant use
Score 2	**Good**	≤ 70% of the total plots are occupied by a predominant use
Score 1	**Sufficient**	≤ 85% of the total plots are occupied by a predominant use
Score 0	**Insufficient**	> 85% of the total plots are occupied by a predominant use

Typology of the Street

Metric	Evaluation of the typology of the street depending on the road profile	
Score 3	**Optimum**	Pedestrian walkways
Score 2	**Good**	Local roads
Score 1	**Sufficient**	Intermediate roads
Score 0	**Insufficient**	Arteries



Crossings

Metric	Percentage of safe and accessible crossings in every direction from the sidewalk's segment	
Score 3	**Optimum**	100% of the sidewalk's segment's crossings comply with the quality standards
Score 2	**Good**	≥ 75% of the sidewalk's segment's crossings comply with the quality standards
Score 1	**Sufficient**	≥ 50% of the sidewalk's segment's crossings comply with the quality standards
Score 0	**Insufficient**	< 50% of the sidewalk's segment's crossings comply with the quality standards

Lighting

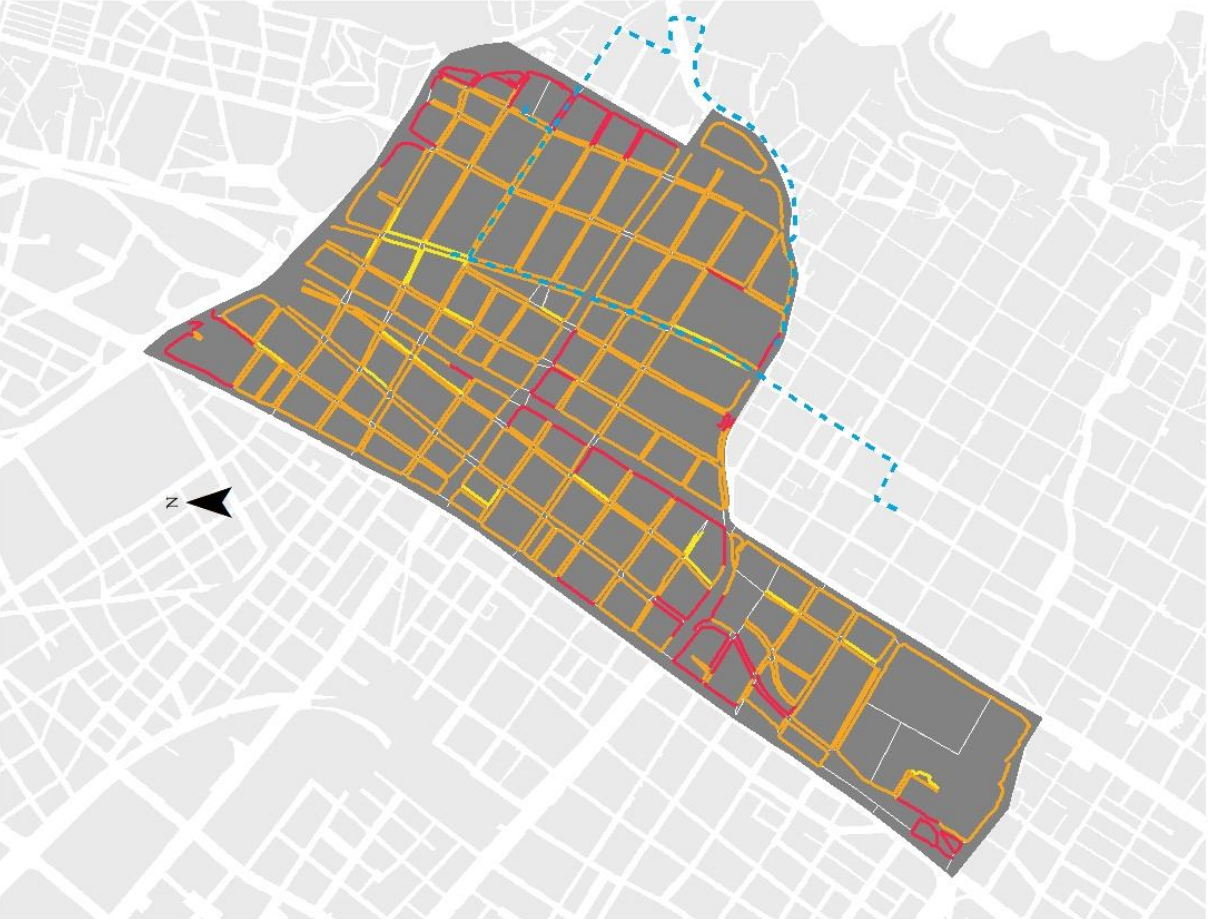
Metric	Evaluation of nighttime lighting in the pedestrian circulation environment	
Score 3	**Optimum**	Result of the evaluation = 100. Lighting complies with the minimum standards for the pedestrian
Score 2	**Good**	Result of the evaluation = 90
Score 1	**Sufficient**	Result of the evaluation = 60
Score 0	**Insufficient**	Result of the evaluation = <60 or lack of nighttime lighting at certain areas

Shade and Shelter

Metric	Evaluation of the sidewalk's segment considering appropriate elements used for shade and shelter	
Score 3	**Optimum**	More than two elements of shade and shelter in each segment
Score 2	**Good**	Two elements of shade and shelter, bus stop or tree in each segment
Score 1	**Sufficient**	Only one element of shade and shelter, bus stop or tree in each segment
Score 0	**Insufficient**	No element of shade and shelter

Noise Pollution

Metric	Level of sound intensity in the streets	
Score 3	**Optimum**	≤ 55 dB (A) level of environmental noise in the lane's segment
Score 2	**Good**	≤ 70 dB (A) level of environmental noise in the lane's segment
Score 1	**Sufficient**	≤ 80 dB (A) level of environmental noise in the lane's segment
Score 0	**Insufficient**	> 80 dB (A) level of environmental noise in the lane's segment



Results

Score 3	**Optimum**	Optimum conditions for walking
Score 2	**Good**	Good conditions for walking
Score 1	**Sufficient**	Sufficient conditions for walking
Score 0	**Insufficient**	Insufficient conditions for walking

New Research Project

Case Study: Bogota

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Strategic Alliance

In order to develop Bogota's walkability indicator, DADEP has a strategic ally: the IDECA (Infraestructura de Datos Espaciales del Distrito), their analytical area is providing support to improve the indicator's measurement of variables and automation.

ideca

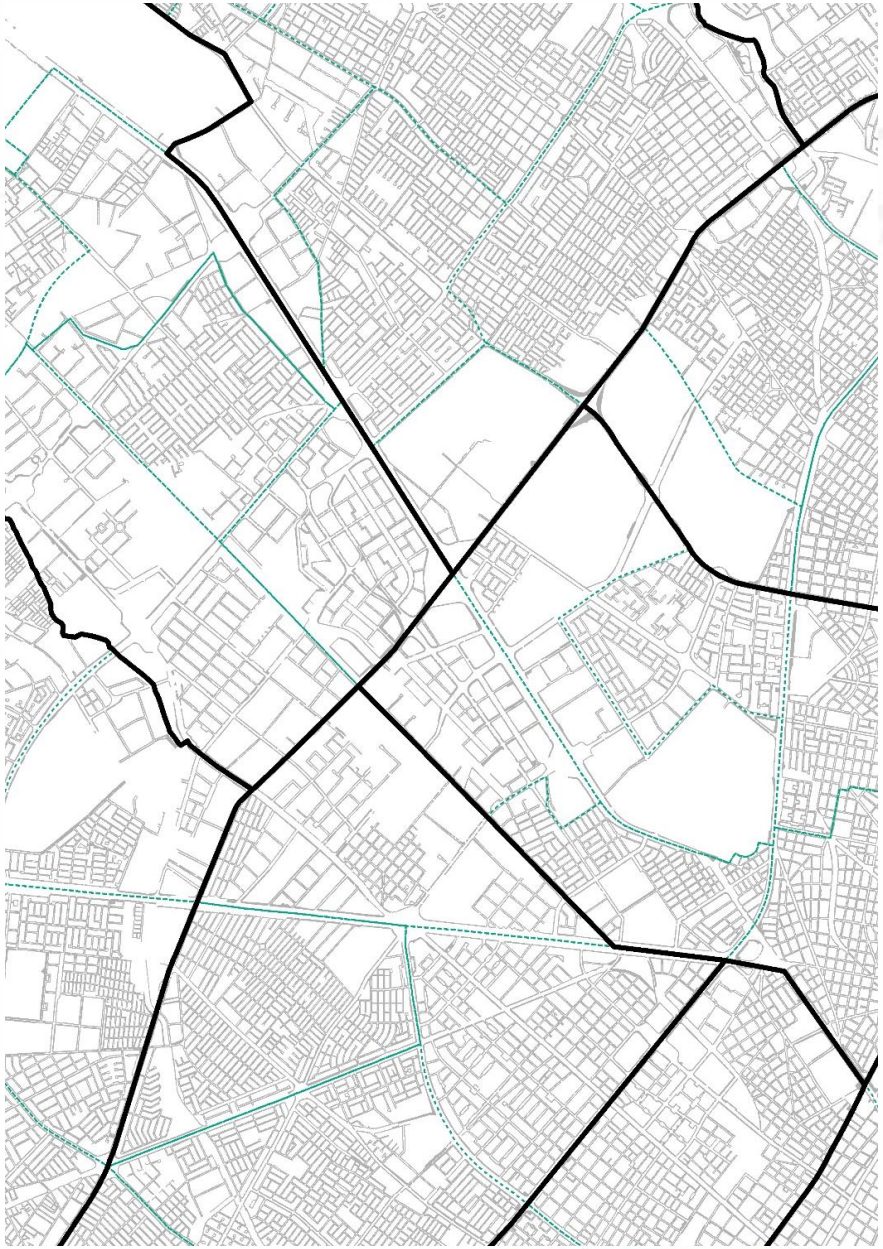
Observatorio del espacio público de Bogotá

Project

In 2020-2021, Observatorio de Espacio Publico is conducting this exercise in the entire city.

167,516 sidewalk segments that the **IDU** has among its geographic database are up for evaluation.

14,445 pedestrian lanes are registered in the city.



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Work to be Conducted by the New Proposal

Reviewing additional variables to complement the study

New analyses to observe the relationships between variable groups

Reviewing the contemplated variables to undertake calculations at city level

Automation of calculations

Progress Made

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Defined Variables

Sidewalks' length and width

Distance to the public transportation system

Mixed uses

Typology of the street

Intersections / crossings

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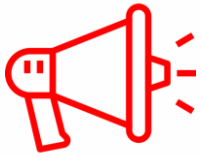
Shade and shelter



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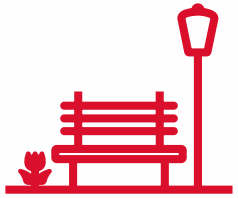
New Proposed Variables



Obstacles

Incidents

PM – 10 PM 2.5

There variables were identified reviewing several studies and analyses of walkability conducted by ITDP.

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What is expected from this project

- Having an analysis of the factors that intervene while walking, which will need intervention in some areas of the city to improve the friendliness of walking.

- Generating guidelines and new policies to enable pedestrian-focused streets.

- Generating projects in public and private spaces to encourage walking and creating a network of exclusively pedestrian streets.

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