



# SPARK:

## Sparking active mobility actions for climate-friendly cities

Walkability & cyclability  
assessment methodology

**SPARK: SPARKING ACTIVE MOBILITY ACTIONS FOR CLIMATE-FRIENDLY CITIES. WALKABILITY AND CYCLABILITY ASSESSMENT METHODOLOGY.**

This document provides an evidence-based approach to the assessment of active mobility conditions on the city-, neighborhood-, or site-level. The SPARK walkability and cyclability methodology was developed to support the baseline assessment of the SPARK project cities.

**ABOUT SPARK**

The SPARK project: Sparking active mobility actions for climate-friendly cities (2022-2025) is supported by the German Federal Ministry of Economic Affairs and Climate Action (BMWK) and the Federal Ministry of Environment, Nature Conservation and Nuclear Safety (BMUV) through their International Climate Initiative (IKI).

The goal of the SPARK project is to increase the role of active mobility in building resilient and safe transport systems, contribute to national emission reduction targets, and promote climate-friendly mobility behavior in Pasig City, and Quezon City in the Philippines.

**ABOUT ICLEI – LOCAL GOVERNMENTS FOR SUSTAINABILITY**

ICLEI – Local Governments for Sustainability is a global network working with more than 2,500 local and regional governments committed to sustainable urban development. Active in 125+ countries, ICLEI influences sustainability policy and drives local action for low emission, nature-based, equitable, resilient and circular development. ICLEI's Members and team of experts work together through peer exchange, partnerships and capacity building to create systemic change for urban sustainability.

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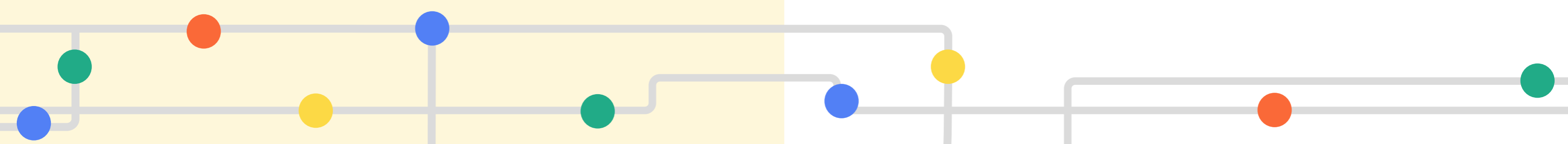
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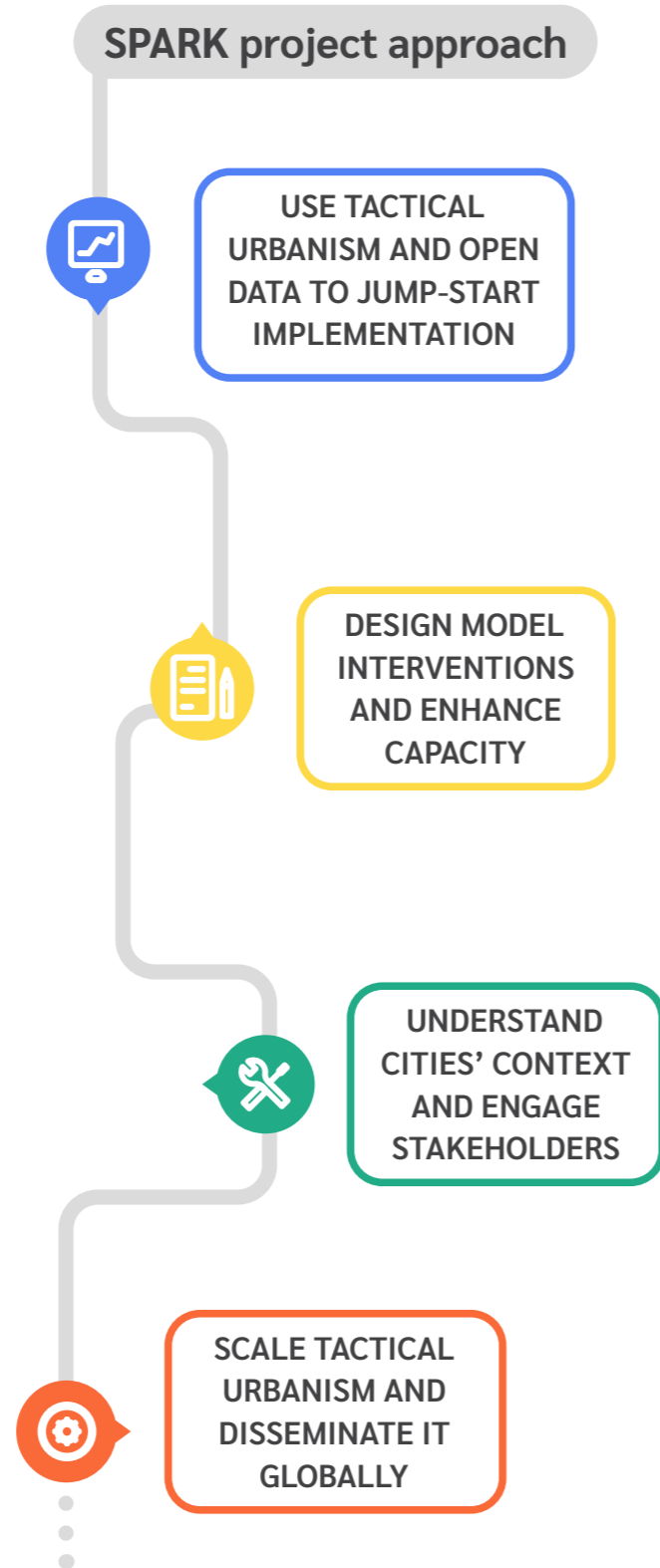
# Introduction

Active mobility, i.e., walking and cycling, is an equitable, affordable, and efficient mobility option offering individual freedom and health benefits, minimal adverse environmental impact, and considerable carbon emissions reduction potential. ICLEI's "Sparking active mobility actions for climate-friendly cities" (SPARK) project (2022-2025) aims to increase the role of active mobility in building resilient and safe transportation systems, contribute to national emission reduction targets, and promote climate-friendly mobility behavior in cities. SPARK is supported by the German Federal Ministry of Economic Affairs and Climate Action (BMWK) and the Federal Ministry of Environment, Nature Conservation and Nuclear Safety (BMUV) through the German International Climate Initiative (IKI).

This document is part of the first step in the project's approach to understanding cities' context and engaging with stakeholders. It provides an assessment methodology of walkability and cyclability in urban areas that can be applicable in the global south context.

## How to use the tool?

The walkability and cyclability assessment methodology is designed as a diagnostic tool to guide areas of improvement and recommendations for targeted interventions. The assessment methods cover three levels: city, community/neighborhood, and intervention sites, which typically cover a limited area from one to three streets. Each level of assessment contains a set of parameters. Each parameter is measured by several indicators that cover either walkability or cyclability (or both) as seen in Figure 1.



On the city level	P1: Enabling environment
	P2: Active mobility policies
	P3: Performance indicators
On the neighborhood level	P4: Accessibility
	P5: Connectivity
	P6: Continuity
On the site level	P7: Competitive advantage
	P8: Right of way
	P9: Human infrastructure
	P10: Safety and security
	P11: Way finding
	P12: Comfort
	P13: Attractiveness

Figure 1: Levels of assessment and their corresponding parameters.

### Recommended steps for optimum use of the assessment tool:

- Map the relevant stakeholders on the city level and invite them to the first assessment workshop for the city's overall walking and cycling situation.
- Discuss a prospective pilot community/neighborhood based on the assessment and whether there might be relevant stakeholders on the community level to be involved in the upcoming workshops.
- Hold a second assessment workshop to include new stakeholders relevant to the selected neighborhood/ community.
- Recommend a site to be chosen for a tactical intervention based on the knowledge created in the two workshops.
- Site analysis for tactical interventions.
- Set intervention targets based on the analysis (i.e., increasing the level of safety at crossings, including women and children, etc.).
- Each section of the assessment can also be used separately if an assessment on one or more levels is needed.



This level of assessment is based on the Ecomobility SHIFT+, a methodology that helps cities conduct self-assessments of their mobility performance (ICLEI - Local Governments for Sustainability, 2020). Ecomobility SHIFT+ is particularly tailored to suit the wider mobility context of cities in the Global South. We chose and customized the relevant parameters covering active mobility for this assessment. The performance assessment is designed to be conducted in one workshop, preceded by preparatory work, and produces a diagnostic report on active mobility in the city.

## Step-by-step guide to the city-level assessment

### Forming a working group

The assessment requires forming a working group that can provide expert knowledge to conduct the assessment. The group should reflect the municipality's different departments in planning for active mobility, land use planning, public health, etc. It can also include private operators (e.g., bike sharing), mobility experts, university departments, and civic organizations.

To ensure a smooth collaborative process, assign a member of the working group to each of these roles:

- Group coordinator: Responsible for bringing together the working group members and coordinating and setting up the agenda for the workshops and meetings.
- Data compilation chief: Responsible for mapping and gathering the needed data before the assessment workshop.
- Contact person: In case communication is needed with public departments or external actors.

### Collecting data and evidence

Before the assessment, set a work plan to compile the needed data, references and a list of contacts in case external advice is needed. The assessment in this phase is based on a score given to each indicator based on hard facts, existing policy and strategy documents, or expert judgment.

For the more qualitative indicators, the working group must agree on the decision-making process (i.e., deciding the score by consensus or average score).

### Assessment workshop

The working group should decide together whether the assessment can be conducted in an intensive workshop (over two days), or spanned out in a series of workshops. The general outline of the workshop should include three sessions to cover the three city-level assessment parameters and a final closing session to review and discuss the results. It is recommended to take notes during the workshop or record the sessions to keep track of any key points of discussion for producing the final report.

For each parameter, there is a scorecard through which the working group will look at the indicators and locate their city's performance on a scale from 1 to 5. The following examples are for the indicators of human resources and safety. In the first example (Table 1), assessing human resources might involve a discussion and qualitative judgment by the working group on the level of collaboration and training among the staff assigned to plan for active mobility (if any).

# CITY LEVEL

## Walkability & Cyclability assessment

1.3. Human Resources						
Assessment score	1	2	3	4	5	Assessment score
	No specific human resources for active mobility	Store term limited human resources	Stable long-term human resources for active mobility	Stable long-term human resources for active mobility, with collaboration between departments	Stable long-term human resources for active mobility, collaboration between departments, and increasing resources; staff encouraged to train and innovate	
Staff availability	No specific staff for transport and urban planning	Short-term, discontinuous e.g., staff are loaned from the environmental department for a temporary project	Long-term or permanent transport department is established, mainly for traffic and road construction	As in 3), and staff not only work on traffic and road construction but also initiatives to improve active mobility	As in 4) but staff are also encouraged to train and innovate	4
Collaboration across departments	None	Minimal, only when required on specific issues or done informally	Encouraged and generally conducted on a project basis	Encouraged with formal channels. (e.g. transport department collaborates with urban planning department)	The norm	2
Training	None	Training is given on an ad-hoc basis	Formal training is given once in two to three years	Training is given at least once a year	An accepted part of the way of working	4
Total						10

Table 1: Scorecard to assess active mobility human resources within the local government.

The second example (Table 2) of assessing safety will need a hard fact or closest estimation from the road safety data that exists.

Safety						
Assessment criteria	1	2	3	4	5	Assessment score
People killed or seriously injured per year, per 10,000 inhabitants (i.e., combined number of people killed and seriously injured)	More than 20	15 - 30	10 -14	5 - 9	<6	1
Total						1

Table 2: Scorecard to assess safety level for active mobility.

Reach out to [ICLEI Sustainable Mobility](https://www.iclei.org/en/active-mobility) to get the full stack of scorecards.

After getting the total score from all the indicators, the final session shall include an overview of the overall performance, a facilitated discussion on the feasible path for improvement, and brainstorming of specific (short, medium, and long-term) actions the city needs to take to improve active mobility.

### Assessment output and finalization

The final assessment report shall cover a general overview of the mobility scene in the city and an overview of each of the assessment parameters, including the achieved score, the possible good practices and shortcomings as per the discussions in the workshop, and a final section on the recommended actions. Working with the scorecards in an MS. Excel format can be linked to instant visualization of the performance indicators as seen in the following image, which can help in the production of the final report (figure 2).

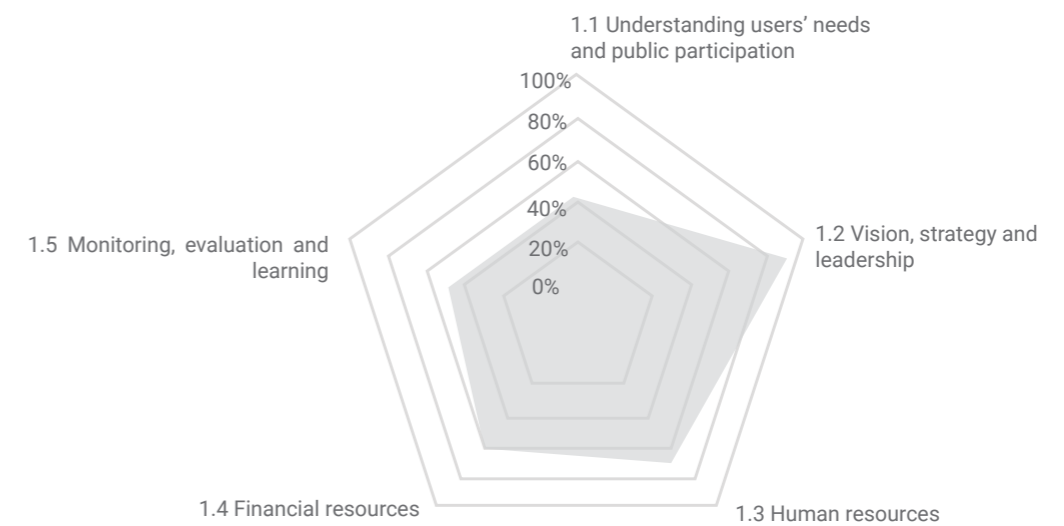


Figure 2: Visualization of a local government performance on the enabling environment parameter.

Parameters	Indicators
1. The enabling environment	1.1 Understanding users' needs and public participation
	1.2 Vision, strategy, and leadership
	1.3 Human resources
	1.4 Financial resources
	1.5 Monitoring, evaluation, and review
2. Active mobility policies	2.1 Promoting walking as a mode of mobility
	2.2 Promoting cycling as mode of mobility
	2.3 Equitable access
	2.4 Planning for new urban areas
	2.5 Low speed/car-free zones
3. Performance Indicators	3.1 Modal split
	3.2 Safety
	3.3 Air quality
	3.4 Travel time
	3.5 GHG emissions

Table 3: The city-level assessment parameters and their corresponding indicators.

# The Enabling Environment

## 1.1 Understanding users' needs and public participation

### Working definition

The degree to which the city considers the current and future needs of all users of mobility services (residents and visitors) and collects relevant baseline data on the walkability and cyclability status of the city, as well as the public participation process to understand their views. Baseline data may include modal shares, safety, travel time, etc.

### Purpose

To make the city more walkable and cyclable, the city administration needs to know how residents travel and identify their mobility and related user needs; ideally, this can be projected for both the near and medium term.

### Terminology

- *Understanding users' needs* refers to what the pedestrians and bike users require, for example:
  - Where do they need to travel, and how often?
  - What services and activities do they need to access?
  - What level of quality do they expect in their journey, and what goes to make up their perception of quality?
  - In the future, how might this change?
- *Public participation* indicates that the public's views are collected in a transparent, methodical manner, and feedback is considered before enforcing any new projects, programs, policies, or legislation.

## 1.2 Vision, strategy, and leadership

### Working definition

The level of political and managerial vision and support for active mobility plans and how far the senior staff and politicians lead the policy, both strategically and at an implementation level.

### Purpose

A vision and strategy for active mobility are critical for a city to be walkable and cyclable. This vision and strategy must also be supported at senior management and political level.

### Terminology

- An *active mobility policy/strategy/plan* is detailed in a document that is deliberated and approved by technical and political decision makers, e.g., the city council. It is a summary of a process for the implementation of the strategy and states the objectives, targets, measures, and actions that it will implement to achieve the goals.
- *Sustainable Urban Mobility Plan (SUMP)* is an urban mobility planning concept that assists cities in analyzing their current mobility systems and envisioning sustainable mobility strategies, implementation measures, and monitoring and evaluation tools.

## 1.3 Human resources

### Working definition

The level of staff and resources available to plan and implement active mobility measures and how collaboration between city departments takes place.

### Purpose

The indicator looks at how tasks and responsibilities within the mobility/transport team are structured as well as how collaboration between city departments/ divisions/units takes place, and between which specific groups (such as spatial planning, traffic planning, public works, marketing, and communication).

## 1.4 Financial resources

### Working definition

The proportion of the city's transport budget spent on facilitating walking and cycling versus on motor traffic, where this spending is intended to reduce vehicle traffic (e.g., traffic reduction), averaged over the previous three years.

### Purpose

Sufficient allocation of resources ensure effective implementation of walking and cycling measures. Adequate resource allocation is a great indicator of actual policy priorities.

## 1.5 Monitoring, evaluation, and review

### Working definition

The degree to which monitoring, evaluation, and review (MER) of activities to improve active mobility are integral to the city's review and self-improvement processes.

## Active Mobility Policy

### Purpose

The strategy document to promote walking and cycling should set targets to measure the achievement of objectives. It is important to monitor to what extent the targets are being achieved. More generally, MER shows whether the strategies and measures are on track and being used as intended. Evaluation helps to explain why parts of the strategy and measures may or may not have worked. If the city does not have a strategy document but seeks to have one, monitoring and evaluation is helpful to form a basis for review and policymaking.

### Terminology

- *Monitoring* is, quantitatively or qualitatively, measuring what has happened e.g., how people's use of a bike path increased once it was provided with streetlights.
- *Evaluation* is explaining why a behavior happened, e.g., did people use the bike path more because it had streetlights or because petrol prices rose at the same time?
- *Review* is modifying the strategy and action plan in response to MER results.

### 2.1 Promoting walking as a mode of mobility

#### Working definition

This measures the degree to which the walking network is safe, accessible for all, comfortable, and maintains good signage, and the extent to which pedestrians are given priority above other transport modes throughout the walking network.

This indicator is dependent on the expert's assessment of how it 'feels' to walk in the city, compared to other places where they have walked and taking in consideration the cultural factors and perception of comfort, safety, and accessibility. A walking network includes the footway network alongside roads but also across parks and other places where motor vehicles have no direct parallel route. A high-quality walking network has functional connectivity.

#### Purpose

The walking environment is designed to make walking attractive and accessible as a transport option. Attractive public spaces are safe, with suitable amenities and wayfinding information, accessible to all people (including those with reduced mobility), easy to use, and enjoyable for walking. Such designs are more likely to incentivize walking.

#### Terminology

- *Comfortable* means that the user feels that they have enough space, lighting and are not subject to undue stress, noise, diversions, poor surfaces, and exposure to traffic immediately adjacent to the walking routes.
- *Accessibility* refers to public areas that have been adapted to make them barrier-free for people with reduced mobility (PRM), e.g., pavements are of adequate width, even and enhanced by measures such as curb buildouts.
- *Pedestrian priority* means that walking is given priority in the transport hierarchy. At signalized crossing points, pedestrians have crossings for which waiting times are short (optimum waiting time is 60 to 90 seconds) and where vehicles are given lower priority to waiting pedestrians (National Association of City Transportation Officials, 2013).
- *Correctly signed* means that the wayfinding system is so clear that a visitor can find their way on foot to major destinations such as the city's districts, schools, hospitals, and transport hubs.

Note: This indicator can be assessed using GIS and other mapping tools to show accessible features of the street environment that have been installed, site visits and audits of public spaces, and using pedestrians' feedback and comments. It can identify walking networks of the city and measure their length in meters so that the percentage of streets with continuous footways can be calculated and appraisal for the coverage of wayfinding information/systems is assessed. The set of indicators also can provide a review of the amenities to improve walking (e.g., benches for the elderly) and safety perception.

## 2.2 Promoting cycling as a mode of mobility

### Working definition

The extent to which measures are taken to create a cycling network that is safe, accessible to all, comfortable, attractive, and well-connected to (and integrated into) public transport services.

### Purpose

Cycling has the strong potential to establish a modal shift away from fossil-fuel-dependent transport modes and provide considerable individual and collective health benefits. Thus, a consistent approach to increase the overall quality of conditions for cycling is essential.

### Terminology

- *Cycling conditions* hinge on the quality and functioning of a cycling network with three essential requirements: Cohesion, directness, and safety.
- A *cycling network* is defined as connected and designated paths that are open to cyclists along with any segregated facilities alongside roads, but also across parks and other places where there is no direct parallel route for motor vehicles.
- *Cohesion* concerns the extent to which cyclists can reach their destinations. It involves the construction of a complete and comprehensive system of connections – from home to work destinations to amenities accessible by bicycle.
- *Directness*, in terms of distance and time, refers to a collection of routes and connections offered to cyclists with a low detour factor.
- *Safety* refers to avoiding conflicts with crossing traffic, separating vehicle types, reducing speed at points of conflict, ensuring uniform traffic situations, etc.
- *Maintenance* is related to the condition of the infrastructure and its accessibility throughout the year.
- *Access for vulnerable groups* refers to how safe and comfortable it is for cyclists who are elderly, children, and people with reduced mobility (PRM) to cycle.

### Suggested evidence

- GIS and other mapping tools to show the accessible features of the cycling environment that have been installed.
- Site visit to identify all on- and off-street networks and the quality of the cycling environment (optional).
- User feedback/comments.
- Audit of bike paths (if available within community organizations or the Department of Transport).

## 2.3 Equitable access

### Working definition

Equitable access refers to the ease and ability to reach locations for services and activities and complete personal and economic transactions disregarding income level, bodily ability, gender or age.

### Purpose

The goal of having good access is the most efficient way to connect our origins and destinations, thus reducing traffic congestion or even the need to undergo long trips. Well-developed land use planning and efficient transportation systems are key elements of good accessibility, connecting to equal social and economic opportunities.

### Terminology

- *Accessibility* is the quality of travel that takes place at the individual or community level, considering the travel time, travel cost, travel options, comfort, and risk. It also addresses the different needs of a community that are beneficial versus just the movement itself. It can also be understood as the ease of reaching services, activities, and urban opportunities such as jobs, education, and healthcare.
- *Connectivity* refers to the density of paths and roadway connections. It considers the straightforwardness of travel between destinations and between travel modes, such as the ease of walking, cycling and to public transport stations.
- *Affordability* is the cost of monthly network-wide mobility for all modes as a percentage of a median gross monthly income for people of working age in the city (e.g., the cost of public transport ticket or access to bike sharing programs, etc.).
- *Universal access* is the equipment of facilities to be used by diverse people in terms of bodily ability, age and gender in a safe and equitable way (e.g., public transport vehicles, stops, and terminals are equipped with ramps, elevators for access and use by PRM).

### Suggested evidence

This indicator can be measured by mapping public transport routes and their stops across the city by drawing a radius of 500 meters and 2 km manually or with GIS mapping. From this, the percentage of the population within the radius can be estimated. Based on this radius, determine the population living within and out of the radius according to age, sex, persons with reduced mobility, and other characteristics.

Mark out the total number of key jobs and urban services available (e.g., job center, hospital, public school, shopping mall, market). Then, select five key points across the city (representing key demarcation of districts) and calculate the number of services that can be reached within 60 minutes by each transport mode. These can be used to calculate the percentage. Similar to the method above on calculating the radius, calculate the percentage of the population within 500 meters linear of crow fly distance of a public primary school. To calculate the accessibility to job and urban services, five common types of trips can be selected by the city together with the stakeholders for the assessment among the following:

- Residential area – inner city center
- Residential area – residential area
- Residential area – main non-central employment area(s)
- Residential area – public primary school
- Residential area – hospital
- Residential area – central rail/bus station
- Residential area – leisure center



Upon selection of five trips, the following information can be collected:

- Travel time, broken down by modes: walk, bicycle, car, bus, train, taxis, scooters, and informal or semi-formal mobility ( jeepneys, matatus, boda bodas, tuk-tuks, etc.).
- Cost of the journey for an adult according to the travel modes above versus average monthly income.

Conduct field visits to determine types of infrastructure available for children, the elderly, visually impaired people and people with reduced mobility such as wheelchair access, step-free stations, streetlights, elevators, etc.

## 2.4 Planning of new urban areas

### Working definition

The extent to which urban areas are planned to reduce the need to travel by car and to facilitate travel by sustainable transportation modes.

### Purpose

Active mobility-friendly cities emphasize how new or redeveloped areas of the city are planned to link them to quality public transport, cycling, and walking networks to make travel by these modes as fast, convenient, and safe as possible. Planning new urban areas that encourage short-distance travel via mixed-use, transit-oriented and human-scale developments has greater potential to foster an active city.

### Terminology

- *Spatial planning, or land-use planning*, aims at envisioning, designing, and selecting actions and projects for the development and revitalization of a city. It usually also addresses how new and older urban developments are interconnected through different transport routes and modes.
- A *city plan* is considered active-friendly when it includes actions such as extending the cycling network throughout neighborhoods, limiting car parking, redeveloping existing areas to be more livable and walkable, increasing urban spaces and connectivity between areas, encouraging mixed-use sites and the establishment of proximity services within residential areas.

### Suggested evidence

- Excerpts of spatial plans and proposals supporting mixed-use, active mobility and transit-oriented developments.
- Field and technical studies and analysis done before and during development proposals.
- Sample of major development sites with qualitative analysis of their accessibility by active mobility modes and whether they have any measures in place to manage access by different modes and encourage active mobility.
- Guidance documents for city staff on how to secure such developments through the planning system, including details of any impact assessment before planning approval.
- Site visits.

## 2.5 Low speed streets and car-free zones

### Working definition

Percentage of the area of the city's streets that are limited for certain cars (e.g., above given pollution standards) or where there is a speed limit of 30 km/hr or less that are enforced by physical measures (e.g., speed humps, barriers) or by local police or appointed traffic wardens.

### Purpose

Traffic calming measures, including low-speed or car-free zones, encourage commuters and residents to walk or cycle due to perceived safety from traffic. This also allows active modes to be more efficient than cars in terms of travel time since automobiles are slowed down.

### Suggested evidence

- Survey or GIS mapping of the extent of 30 km/hr zones (including any car-free zones).
- Evidence that the speed restrictions are enforced (e.g., speed cameras, patrol officers).

## Performance Indicators

### 3.1 Modal split

#### Working definition

The percentage of travelers using a particular type of transportation or number of trips within the city made using different types of transport modes.

#### Purpose

This indicator measures the impact of the city's mobility policies by examining the actual travel modes that are being used, as well as long-term trends of mobility patterns.

#### Suggested evidence

Data collection, possibly by household surveys or innovative apps. Otherwise, visual counts of pedestrians, buses, can, and van occupants across a cordon or screening and on-street interviews can be done during peak hours. However, these may not be as accurate but helps in monitoring trends over time.

### 3.2 Safety

#### Working definition

Traffic fatalities and injuries per year per 10,000 inhabitants.

#### Purpose

Road safety could be a deterrent factor for people who consider walking and cycling. Accidents cause the city or the victims to suffer from poor quality of life and relevant economic losses.

#### Suggested evidence

Traffic fatality and injury data, according to different population groups.

### 3.3 Air quality

#### Working definition

Air quality standards for cities is defined by standards in particles concentration (e.g., PM10, NOX).

#### Purpose

To improve air quality, pollution from transportation-related sources needs to be reduced, including emissions from vehicles as well as congestion which results in additional emissions. The number of private vehicles on the streets should be reduced as much as possible.

#### Suggested evidence

- External data sources like air quality apps, or air quality measuring stations affiliated with universities and research centers.
- Breakdown of pollution data according to emission sources (e.g., industry, commercial, transport).
- Data and measurement stations.

### 3.4 Travel time

#### Working definition

Amount of time necessary to travel or commute to work.

#### Purpose

Travel time impacts a traveler's modal choice (walking, cycling, public transport, shared mobility options or private vehicles). Travel for main frequent trips can be chosen as the indicator (e.g. work commutes, commutes to universities, school drop-offs, etc).

#### Suggested evidence

- Survey (OD survey, field survey, etc.).
- Navigation apps prediction results.
- Comparative studies and tests were done on the field.

### 3.5 Greenhouse gas (GHG) emissions

#### Working definition

Greenhouse gas (GHG) emissions stemming from the transport sector (both passenger and goods) in tons of CO<sub>2</sub> equivalent per person per year.

#### Purpose

GHG emissions from the city's transportation sector needs to be reduced as much as possible.

#### Suggested evidence

- This can be calculated from a household survey or other methods used to derive modal split and also gather data on average trip length.
- Information on companies' vehicle fleets, as well as the type of fuel used and the number of kilometers traveled.



This community-level assessment provides a comprehensive view of the community’s strengths and areas for improvement in terms of urban mobility and accessibility. It examines how easily residents can access various activities and services, how well the area is connected to different modes of transportation, and how coherent the walking and cycling networks are within the community or neighborhood.

The community-level assessment should be facilitated by a mobility expert whose role is to look into the available maps and data to extract the information needed for each indicator and explain it to the relevant stakeholders in an accessible and user-friendly way.

Parameters	Indicators
Parameter 4: Accessibility	4.1. Land-use and activities
	4.2. Neighborhood density
Parameter 5: Connectivity	5.1. Connection with public transportation (formal, semi-formal and informal)
	5.2. Availability of cycling infrastructure
Parameter 6: Continuity	6.1. Coherence of the walking and cycling network

Table 4: The community-level assessment parameters and their corresponding indicators.

# COMMUNITY LEVEL

Walkability & Cyclability assessment

## Accessibility

### 4.1 Land use and activities

#### Working definition

Identifying the different uses of urban blocks, buildings, and spaces and how they relate to making trips accessible over a short distance by walking and cycling.

#### Purpose

A neighborhood with mixed and diverse activities brings people closer to the different functions, hence reducing the need to travel to other neighborhoods or farther destinations. Having a diversity of land uses (commercial, residential, educational, etc.) activities (e.g., street markets, community gardens, etc.).

#### Terminology

- *Active ground floor* (also known as 'active edge') is the extent to which buildings are used actively on the street level, including shops, restaurants, active residential or commercial entrances.
- *Special features* are the unique activities that attract people to the place (e.g., cultural venues, or a popular sports facility).

#### Suggested evidence

- Local land use and building use maps
- GIS maps
- Site visits
- Online activity maps (via google maps, Openstreet maps, Instagram maps, etc.)

### 4.2 Neighborhood density

#### Working definition

The neighborhood density is measured by the number of people inhabiting the neighborhood in relation to its area.

#### Purpose

Population density affects the modes of mobility used in human settlements. Areas with low population density, like suburbs, sprawled cities, or areas on the fringes of cities, tend to favor motorized mobility for movement, call for more investments in roads for cars, and affect people's choices in transportation. On the contrary, dense and compact urban areas have more potential to reduce the need for motorized transport and more potential for active mobility.

#### Suggested evidence

- Consensus data
- GIS maps

## Connectivity

### 5.1 Connection with public transport

#### Working definition

The availability of access to public transport, including train and metro stations, trams, bus stations or hubs for semi-formal and informal buses.

#### Purpose

The availability of access to public transportation encourages people to rely on public, semi-formal or informal transportation for longer trips while relying on active mobility for first and last miles. This dictates how people will arrive and depart from a certain neighborhood while they are residing or working in another. The absence of public transportation will encourage more reliance on motorized mobility and will put pressure on the available public spaces and streets to serve car movement and parking.

#### Terminology

*Semi-formal and informal mobility* are the means of paratransit that are initiated or operated informally without the planning or interventions of departments of transportation or similar authorities. They can be regulated and licensed in some cities. The locally recognized paratransit can have different names from one country to another, including jeepneys, matatus, tuk-tuks, rickshaws, boda bodas.

### 5.2 Availability of cycling infrastructure

#### Working definition

The extent to which the neighborhood facilitates the use of bikes by providing the physical infrastructure. This includes safe and protected cycling lanes, cycling paths, and designated bicycle parking.

#### Purpose

The more a neighborhood provides proper cycling facilities, the more likely people will consider cycling as one of their mobility options. This is particularly true when safe cycling spaces are separated from motorized traffic and the cycling lanes are covering enough points of origin and destinations. Bicycle parking facilities are also relevant, especially at public transport hubs where cycling trips can be combined with public transportation for longer trips.

## Terminology

Definitions may change from country to country or even between cities from the same country. The following definitions are based on the Republic of the Philippines' Department of Public Works and Highways:

- A *cycling facility* is a general term denoting improvements and provisions to accommodate or encourage cycling, including parking and storage facilities, and shared roadways.
- *Cycling lanes* are portions of roadway designated for preferential or exclusive use by cyclists or light mobility, identified by pavement markings, physical separators and/or signs. They are intended for one-way travel, usually in the same direction as the adjacent traffic lane, unless designed as a contra-flow lane or two-directional.

Parameter

# 6

## Continuity

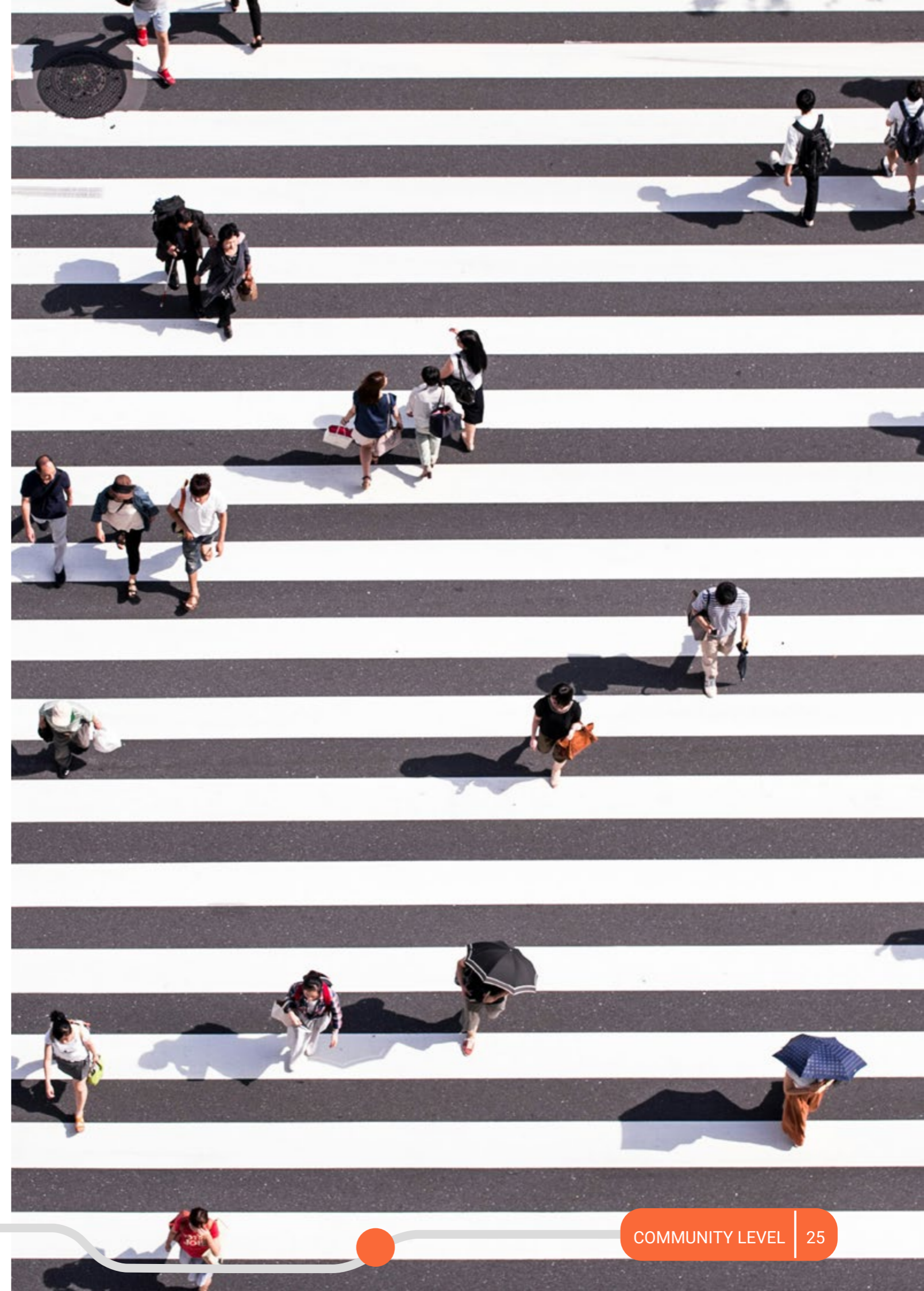
### 6.1 Coherence of the walking and cycling networks

#### Working definition

A walking and cycling network that provides uninterrupted, barrier-free, and connected spaces for walking and cycling. Cycling lanes, for example, should be continued through and after major intersections and connect with lanes in different directions to form a network. Sidewalks and pedestrian streets should also be connected and provide safe crossings on the ground level that allow pedestrians to go from point A to point B with minimum physical effort.

#### Purpose

Measuring the quality of cycling and walking facilities should take into account the whole network, not only the separate segments of it. Looking at the network as a whole enables urban planners to identify the blind spots, in which some areas might have shortage of active mobility facilities, or the parts of the network that can be beneficial as a connection point or a shortcut.





The site level is the most detailed level of assessment, which requires a variety of assessment tools that also includes participatory structures, data collection and observations. Table 5 indicates the list of parameters to be assessed on a selected site and its corresponding assessment tools. The legend below links each of the assessment tools to a worksheet to be used as a base for the workshop structure, field audit and pedestrian survey.

Parameter	Assessment Tool	Community Engagement	FRs/ Experts	Desk Analysis
P7	Competitive advantage		✓	
P8	Mapping the right of way	✓		
	Desire lines mapping		✓	
P9	Human infrastructure	✓		
	Field: Counts		✓	
	Persona mapping		✓	
P10	Safety and security	✓	✓	
	Street intercept surveys: Safety		✓	
	Field: Street activity level		✓	
	Field: Lighting		✓	
	Field: Vehicle speed		✓	
	Desk: Data on traffic accidents			✓
P11	Wayfinding		✓	
P12	Comfort		✓	
	Field: Mapping cycling amenities		✓	
	Field: Street assessment shade/noise/cleanlines		✓	
	Street intercept surveys: Comfort	✓		
P13	Attractiveness	✓	✓	

Table 5: Site level assessment parameters and their corresponding assessment tools (refer to the annex section).

■ Workshop structure and focus group discussions (FGD)
 ■ Pedestrian survey form
 ■ Field Audit Form

# SITE LEVEL

## Walkability & Cyclability assessment

## Competitive Advantage

### Working definition

This methodology is set by *Bicycle User Experience (BUX)* to evaluate the advantage of choosing walking and cycling compared to other modes of mobility in a given traffic corridor. It can also be used to assess walking competitiveness for short trips or first mile trips (BUX, 2017a).

### Purpose

The choice of modes of transportation is subject to many factors; some of them are related to the user (gender, physical ability, perceived safety, etc.), and some are objectively linked to the competitive advantage of certain modes compared to others (fewer costs, faster, less waiting time, etc.). Cycling and walking need to have the advantage over other modes of transportation for short and connective trips to attract more users and achieve a targeted modal shift, since most of the trips done within urban communities are under five kilometers. Thus, they can be achieved by active mobility.

### Assessment method

- Choose popular points of origin and destination connected by the major traffic artery in your site.
- List all the mobility means that can connect the two points.
- Include all the means of mobility in the assessment matrix.
- Assign different individuals to test the different modes and record their travel data (time/speed/ comfort/ costs, etc.).
- Discuss and rate the competitive position on the following scorecard with a score from 1 to 5, with 5 being the most favorable score and 1 the least.

## Mapping the right of way

### Working definition

The extent to which a mode of mobility is prioritized in a situation of conflict with other modes.

### Purpose

Identifying specific points of conflict between active mobile users and other modes of transport and finding the challenges facing pedestrians and bike users in their journey.

### Assessment methods

#### • User journey mapping

1. Assign different routes to workshop participants, either walking or cycling.
2. The participants take their journey while paying attention to challenges in mobility and points of conflict with other modes, preferably taking photos and pinning the location on the map.
3. Participants return to the workshop venue, and a collective map can be made of the different challenges with geolocation.

For better representation in mapping, different challenges can be assigned to the participants (e.g., walking with a stroller, cycling side to side, using a cargo bike, using a wheelchair, walking with a blindfold accompanied by another participant, etc.).

#### • Desire lines mapping at selected intersections to understand pedestrians and cyclists' revealed preferences and how to improve the flow. This activity is primarily done through video footage at intersections, after which observations are made. If footage will not be possible, researchers can manually map the paths (Copenhagenize, 2024).

1. At the selected intersection, map the existing status of the cycling infrastructure.
  - Type of bike lanes (e.g., separated/shared with roadway/no lane/bi-directional) or pedestrian facility (e.g., sidewalk, path).
  - Bike boxes at traffic.
  - Bulb out curbs at pedestrian crossing.
2. Observe the paths (desire lines) taken by pedestrians and bicycle users; by drawing the path of each user, and which street they pass through at the intersection. If no footage is available, observe the intersection from a clear viewpoint, counting the number of bikes/per path.

## Human Infrastructure

3. Define conflict areas which usually happens at the overlap of the desire lines. For cycling conflicts, Wexler and El-Geneidy (2017) define three types of conflicts in their Montreal research:

- Counterflow interaction conflict - due to a large capacity of bicycle users driving in two directions in the same lane.
- Priority confusion - between different modes at intersections, which could lead to accidents between pedestrians, motorists and bicycle users.
- Directional awareness conflicts occur when bicycle users movements are unanticipated by road users and therefore might lead to collisions.

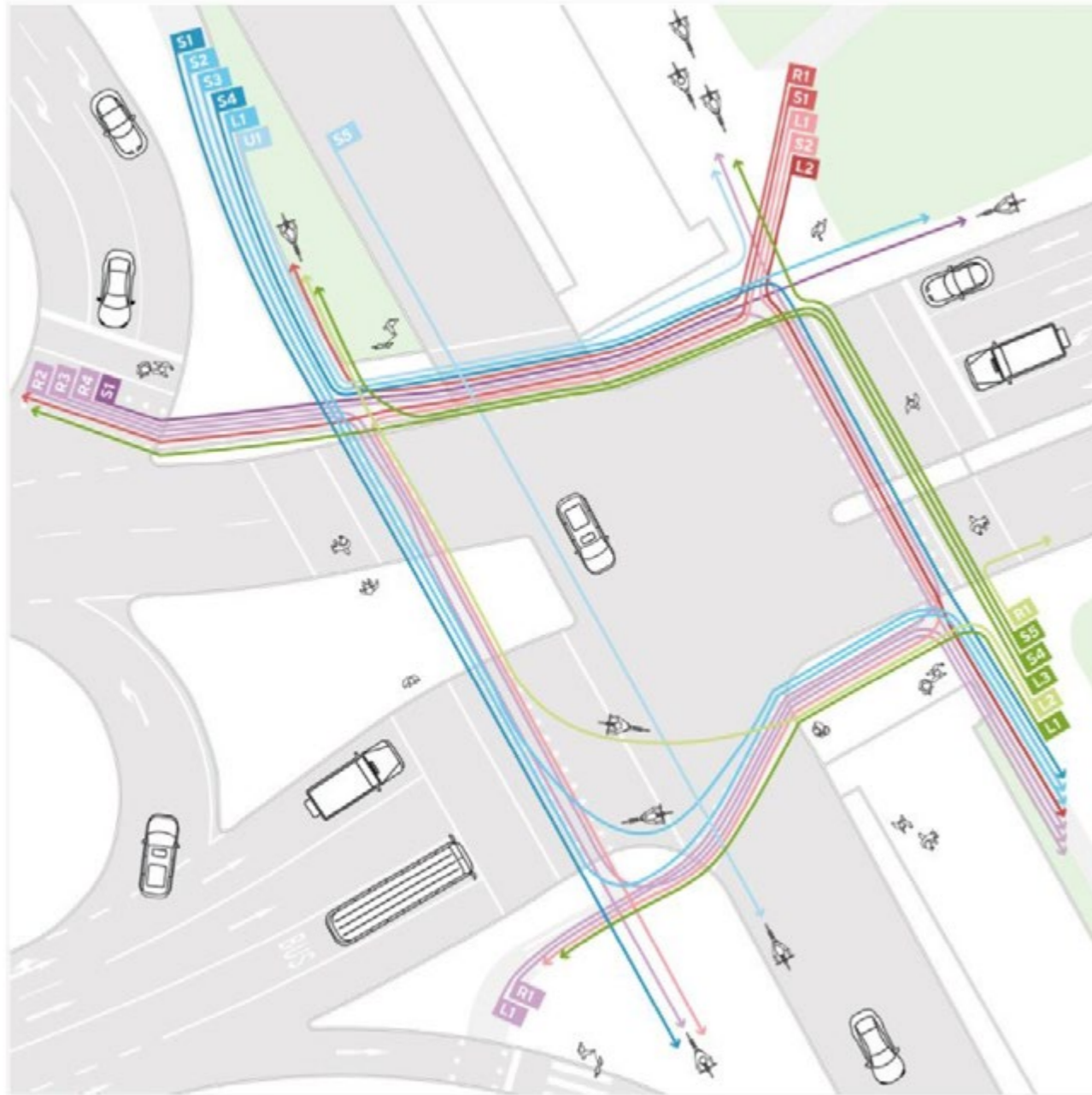


Figure 3: Desire lines mapping (Source: Copenhagenize).

### Working definition

The human factors that promote walking and cycling include the perceptions, popularity of a certain mode, gender norms in mobility, skills, etc.

### Purpose

Identifying soft measures through which targeted actions can be taken to solve the individual and social barriers to cycling and walking (e.g., cycling lessons, awareness campaigns, cultural activities targeting destigmatization or gender narratives).

### Assessment methods

- **Focus group discussions (FGD)** with diverse groups by age, gender, diverse bodily abilities and people with different commuting styles who live or usually commute to the selected study areas. The focus groups should be facilitated to capture their needs and challenges and to pin the specific areas (or intersections) that they feel are in most need of improvement.
  - Preconditions of the participants:
    - Age: Ensuring the participants include at least one person representing different age groups and needs (e.g. school children with their caregivers, students, working and stay-at-home parents, and retirees).
    - Gender: It is recommended to have a session for gender specific needs.
    - Diverse income groups and income classes: This can also include university students, informal workers, manual labor workers and office/professional workers.
- **Field analysis tools**, within the study areas, the team performs the following:
  - Pedestrian and bike count to be disaggregated by gender to include an equity perspective to the count. The counts should follow specific guidelines:
    - Counts are completed for 15 mins at three different times of the same business day (peak and off-peak hours) at midblock locations (indicated in yellow in the figure on the right), it is best to avoid the count at intersections (indicated in blue).
    - During the 15 minutes, the researcher counts the pedestrians and cyclists aggregated by gender. Digital counter mobile phone applications support the collection of this data.
    - After the collection of these counts, add the values and divide them by three.
    - The Average Pedestrian Flow/minute = Resulting value (from step iii)/15.



## Wayfinding

- **Persona analysis:** This method is adapted from the methodological resources of the Bicycle User Experience Platform, the research team can initially follow these steps to ensure the pilot intervention is taking into account the characteristics, needs and desires of different users (BUX, 2017b).
  - Conceptualize the different categories of cyclists (cycling for recreational activities, cycling for sightseeing, cycling for exercising, cycling for livelihood, cycling to workplace).
  - For each profile, complete the personas profile according to BUX's [profile template](#). For example, the percentage of female cyclists in the Philippines is evidently low (Social weather reports, 2023). Therefore, a female persona should be incorporated into the activity to capture their needs.

## Safety and Security

### Working definition

Road safety and personal security are functions of different elements in the built environment that affect users' perception of safety in the area and is also a crucial deterring factor to people who consider shifting to walking or using bikes to commute.

### Purpose

Assess the positive or negative impact of specific design elements, such as lighting conditions, frontages activity and crossings design on the users' choice to walk or cycle in the study areas.

### Assessment methods

- **Field work**
  - The security indicator partially depends on capturing the perception of street users; thus, it is recommended to conduct street intercept surveys at selected locations in the study areas. Street intercepts surveys should capture [1] intensity of the sense of fear of crime or harassment, specifically from a gender disaggregated viewpoint and [2] the sense of safety of users while crossing the street.
  - Street Audit in the study area to assess the role of each of these elements on the pedestrian's sense of safety and security.
    - Level of street activity/ lighting conditions/vehicular speed limit and controllers.
- **Desk research**
  - Review [data on traffic accidents](#) within the study areas and investigate the infrastructural reasons that can contribute to the increase in pedestrian and cyclists road incidents.

### Working definition

This parameter supports the directness and continuity of the pedestrian's navigation on the street. It is designed through the implementation of street design elements such as directional signages, passenger information systems at transport locations, or traffic signs.

### Purpose

Assess the impact of providing additional signage during and after the designed intervention and map the needs of pedestrians to navigate through easily.

### Assessment methods

- **Field work**
  - Mapping locations of existing wayfinding elements (signs and maps, marked pathways, intersection features, pedestrian signals, and tactile and sound facilities). This can be done parallel to completing the field audit form (Annex II).

**Working definition**

Comfort, as one of the three quality factors that contribute to well-designed pedestrian landscapes, is achieved by creating inviting spaces where people can walk, sit, stand, and enjoy their surroundings. This involves providing essential amenities like seating, shade, and protection from the elements, ensuring people can relax and fully engage with their environment.

**Purpose**

Assess the street urban design elements that minimize the physical discomfort during walking and cycling from factors such as crowding, fatigue, and extreme weather conditions (rain and heat), and understand the user's perception of the presence of these elements.

**Assessment methods**

- **Field work**
  - Mapping cycling amenities such as bike lanes, bike parking spaces, traffic signs for cyclists.
  - Assessment of the state of the following within the study area:
    - Shade and shelter: E.g., what are the shading/shelter elements available along the street? How is the climate or level of comfort?
    - Garbage collection and cleaning.
    - Sidewalk condition.
- **Street surveys**
  - They capture users' perception on their degree of comfort in the study areas.

**Working definition**

Attractiveness is partially achieved when all the previous parameters are attained. However, it also requires specific design considerations like a sense of identity, artistic interventions and dominant positive aspects (e.g., human activities, biodiverse space, culturally favorable features) that can incentivize users to shift and adopt active mobility as part of their transport modes (Dietrich & Erto, 2017).

**Purpose**

To understand the elements that contribute to the experience of cyclists and pedestrians, and the type of activities that are positively perceived by active mobility commuters.

**Assessment methods**

- **Desk research**
  - Map the land uses in the study area through open street maps. Create an initial map of areas of open spaces, gardens, commercial buildings, commercial streets, street markets.
  - Produce an initial map where these uses are pinned and clearly defined.
- **Mapping points of interest with the community - FGD**
  - Invites residents/frequent visitors to the study areas to a workshop session to understand the areas that are considered attractive for walking and cycling from their viewpoint.
    - i. Begin the workshop/FGD by asking the attendees opening questions:
      - Where do you usually walk or cycle in your neighborhood?
      - What are the landmarks that you would meet someone in these areas?
      - Where do your children usually meet their friends?
      - Are there areas that host festivals or street events during different times of the year?
    - ii. Review the map produced in the desk research with the attendees. Create smaller groups to discuss these areas, and let the groups draw different routes they take when going on a walk in the study areas.
    - iii. Observe if there are any underlying conditions that make their walks enjoyable. (For example, "I like heading to this place during the day only, during good weather, with friends, if the market is open..."). Try to keep in mind the background of the attendees (gender/age).

The result of this assessment method can be a "points of interest" map where the landmarks and specifically mapped areas are geographically laid in relation to the study area.

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## Annex I: Pedestrian Street Intercept Survey Structure

On-street prompt: Before attempting a street redesign pilot for ( \_\_ St.), we would like to have your input to help us understand more about the street experience for pedestrians. Would you have a few minutes to complete the survey? If people want to know more, refer to the locally known stakeholders (for example, *The municipality is working with the neighborhood to improve the cycling and walking experience on this street*).

### 1. Background Characteristics

#### 1.1 Gender

- Prefer not to say       Male       Female

#### 1.2 Age

\_\_\_\_\_

#### 1.3 Do you have any accessibility needs? (Physical disability/deaf/blind/mobility assistive devices)

*Preferably answered by surveyor by noticing any physical disabilities*

- Yes       No

#### 1.4 Commuting/Traveling with dependants? (Children under 12 years/elderly/carrying goods)

*Preferably answered by surveyor by observation*

- Yes       No

#### 1.5 Employment Status

- Work  
 Study  
 Retired  
 Unemployed  
 Home/family care  
 Other \_\_\_\_\_

### 2. Trip Information

#### 2.1 How did you get to ( \_\_ St.) today? If you used more than one mode (i.e., walk to the bus), select all that apply

- On foot  
 Bike  
 PT (Bus, LRT)  
 Car  
 Pedicab  
 Tricycle

#### 2.2 What brings you to ( \_\_ St.)? Select all that apply

- Work  
 Residence  
 Education  
 Leisure  
 Shopping

#### 2.3 How often do you come to ( \_\_ St.)?

- Everyday  
 Once/twice a week  
 Once/twice a month  
 Rarely  
 My first time here

### 3. User Perception Questions

#### 3.1 How satisfied are you with the safety of walking in this street? (Scale of 1 to 5 where 5 is very satisfied)

- 1 - Very dissatisfied  
 2 - Dissatisfied  
 3 - Neutral  
 4 - Satisfied  
 5 - Very satisfied

##### 3.1.1 If respondent chooses dissatisfied or very dissatisfied, they are asked about the reason for their choice. Choose one or more:

- I don't feel safe crossing the street (high vehicular speed, no speed controllers or safe pedestrian crossing areas)  
 I fear for my personal safety (fear of sexual harassment or assault)  
 I fear for my personal safety (fear of getting mugged/robbed)  
 I don't feel safe because the street is not well-lit or the activity is low (activity level on the street)

#### 3.2 On a scale of 1 to 5 where 5 means you completely agree with this statement, how would you rate the following?

- |  | 1                        | 2                        | 3                        | 4                        | 5                        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| • The pavements are not comfortable to walk on; unevenness and unmaintained (sidewalk material condition)      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Trees/shelter/micro-climate along the street makes me feel uncomfortable when walking during extreme weather | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Too much dust & noise around me  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Too many obstructions make the sidewalks difficult to walk on  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## Annex II: Field Audit Form

The aim of assessing the corridor is to understand more on the the current status of the different elements on the site-level. The assessment assists with the design of the tactical urbanism intervention and the priorities. The assessment form can be built on ODK open data kit or Google form.

### Guidelines

1. Count pedestrians and cyclists (male/female) on the sidewalk segment for 15 minutes at three different times of the same business day.
2. Add the results/3
3. Value/15 = Average pedestrian flow/minute
4. Using digital number clickers as counters to count the different types and make entries in the form. Example of counter applications: "Counter" found on Google Play store or the App Store. Field surveyor can create two categories (male and female) and count for each.

## 1. Counts

### 1.1 Pedestrian count (numeric)

\_\_\_\_\_

### 1.2 Bike count (numeric)

\_\_\_\_\_

## 2. Safety and security

### 2.1 Level of pedestrian activity (choose one)

- High pedestrian activity (commercial area with mixed uses)
- Average pedestrian activity PT (Bus, LRT)
- Low pedestrian activity (activity limited to residences or industrial areas with no visibility during the night)

### 2.2 Lighting conditions (choose all that apply)

*Best to assess this during the night*

- Lighting for pedestrian way (lighting for sidewalk)
- Lighting for roadway (lights road)
- Lighting exists but are blocked by trees/not working/requires maintenance
- There are no lighting elements along the segment

### 2.3 Number of lanes (numeric)

\_\_\_\_\_

### 2.4 Two-way or one-way street

- Two way street
- One-way street

### 2.5 Miscellaneous crossing problems (choose all that apply)

- High uncontrolled vehicular speed
- Short crossing time allowed for pedestrians
- Jaywalking
- No accessibility elements (audio/traffic signs/ramps) at intersections
- Zebra crossing is unmaintained and unclear
- Other \_\_\_\_\_

### 2.6 At intersections, if pedestrian signs are installed, what is their type? (Choose all that apply)

- Traffic walk signs
- Pedestrian push buttons accessible for people with disabilities
- Countdown signal
- Audible walk signal

### 2.7 Effective footpath width

- Less than 2 m
- More than 2 m

### 2.8 Footpath condition

- Bad condition (holes and breakages)
- Good condition (continous and no breakages)
- Moderate condition (can be improved)

## 3. Wayfinding

### 3.1 What are the design elements supporting wayfinding in the area? (choose all that apply)

- Directional signs (directed to vehicles)
- Street names (directed to pedestrians)
- Landmarks (fountains/street landmarks)
- Visual or audible aids for people with disabilities

## 4. Cycling amenities

### 4.1 What are the cycling amenities available along the street? (choose all that apply)

- Bike lane part of roadway
- Bike lane available with obstructions
- Bike lane is available and comfortable to use
- Bicycle parking

## 5. Comfort

### 5.1 Shade and shelter

- The climate is too humid/hot/rainy with no protection elements
- The microclimate along the segment is comfortable

#### 5.1.1 If “the microclimate along the segment is comfortable” is selected in 5.1, what are the elements that contribute to this choice?

- Shade from buildings
- Passive cooling and dehumidifying effect
- Trees and vegetation

#### 5.1.2 What is the condition of the sidewalk?

- The pedestrian infrastructure is blocked and unwalkable (no sidewalk exists)
- Pedestrians are not uncomfortable, the width is less than one metre
- Sidewalk has minor obstructions
- Sidewalk is well maintained and has no obstructions



## Annex III: Community Workshop

These tools serve different parameters on the site level. It involves multiple activities with the community to capture their viewpoints on walkability and cyclability in the study areas.

Activity	Participation Type
I. OD Modal Assessment Matrix	community/expert
II. Journey mapping	community/expert
III. Desire lines mapping	expert/field researcher

### I. Origin Destination Modal Assessment Matrix

1. Choose popular points of origin and destinations connected by the major traffic artery in your site.
2. List all the mobility means that can connect the two points
3. Include all the means of mobility in the assessment matrix.
4. Assign different individuals to test the different modes and record their travel data (time/ speed/ comfort/ costs, etc.).
5. Discuss and rate the competitive position on the following scorecard with a score from 1 to 4, with 4 being the most favorable score and 1 the least.

Template required for exercise (fill in the blanks with the observed means of mobility)

	Cycling	Walking	Car			
Traffic speed						
Motor vehicle capacity						
Motor vehicle volumes						
Cost						
Topography						
Behavior						
Street environment						
Surface quality						
Total						
Average						

### Supporting materials

- Base map of study areas printed in good size and quality and routes are ODs are clearly defined
- Google form to make entries for each OD defined, and easily document the results

### II. Journey Mapping

1. Assign different routes to workshop participants, either walking or cycling.
2. For better representation in mapping, different challenges can be assigned to the participants (e.g., walking with a stroller, cycling side to side, using a cargo bike, using a wheelchair, walking with a blindfold accompanied by another participant, etc.).
3. The participants take their journey while paying attention to challenges in mobility and points of conflict with other modes, preferably taking photos and pinning the location on the map.
4. Participants return to the workshop venue, and a collective map can be made of the different challenges with geolocation.

### Supporting materials

- Base map of Study areas printed in good quality
- Blindfolds, wheelchair, cargo bike

### III. Desire lines mapping

- Select Intersections at which the researchers will conduct the analysis.
- At the selected intersection, map the existing status of the cycling infrastructure.
- Observe the intersection from a clear viewpoint, counting the number of bikes/per path, and by drawing the path of each user, and which street they pass through at the intersection.
- Define conflict areas which usually happens at the overlap of the desire line.
- Categorize the conflict types: counterflow interaction conflict, priority confusion, directional awareness.

### Supporting materials

- Detail map of the Intersection showing street names and lanes
- Digital counter mobile application (for each path) to know how many cyclists take a specific path

## Annex IV: Focus Group Discussions

These tools serve different parameters on the site level. It involves multiple activities with the community to capture their viewpoints on walkability and cyclability in the study areas.

Activity	Participation Type
IV. FGD: Human infrastructure	community/expert
V. FGD: Points of interest analysis	community/expert

### IV. FGD: Human Infrastructure

#### Guidelines

- It is advised that the focus group is between 60-90 mins with 12-15 participants whose profile aligns with the discussion points (women and young girls)
- For an all women discussion, select a female facilitator to lead the group

#### Focus group structure

##### Introducing the session (10 - 15 mins)

- Introducing the project, outlining the session's agenda, and reviewing any consent forms

##### Dividing the group (5 mins)

- If required, the group should be divided according to age, or gender to better facilitate the following discussion

##### Activity 1: Mode choice (30 mins)

The aim of the activity is to unravel the human factors that promote walking and cycling including the perceptions, popularity of a certain mode, gender norms in mobility, skills, etc.

- Start with Probe Questions on the topic: *How did you arrive here today?* (bike, walk, transport) Receive answers from all the participants and use supporting material such as boards and markers to write down the different modes used by each
- Continue with follow up questions: *What kind of challenges do you face using the different modes on your usual commutes? Why do you chose these mode over others?* Focus on walking and cycling
- Continue with follow up questions: *How would you change any of these modes? Would you bike instead of PT? Ask Why?* Keep gender and safety as follow up questions if the group brings them into the discussion

##### Activity 2: Street design (15 mins)

- Share pictures from the study areas, ask them about the pictures and if they're familiar with the areas
- Share the tactical design intended, ask for their feedback and ask how they would imagine their streets

### V. FGD: Points of interest analysis

#### Guidelines

- It is advised that the focus group is between 60-90 mins with 12-15 participants who reside or frequently visit the areas where a tactical intervention will take place

#### Focus group structure

##### Introducing the session (10 - 15 mins)

- Introducing the project and the outputs; outline of this session, followed by a review of consent forms to review any consent forms

##### Activity 1: Types of activity (30 mins)

The aim is to understand the type of interests that attract the pedestrians to choose specific areas/streets to walk in

- Start with Probe Questions on the topic: *What are the kind of trips that you usually complete on foot?*
- More Probe Qs: *Where do you usually head to in your neighborhood for a walk?/What are the landmarks that you would meet another person at in these areas?/Where do your children usually meet their friends for a walk?/Are there areas which host festivals or street events during different times of the year?*

##### Activity 2: Routes of interest (30 mins)

Try to prepare pictures of the landmarks from the desk research of the points of interest to see if participants resonate with these places as points of interest

- Ask the participants to share their different routes within the study areas, while pinning landmarks through their routes that make their trip enjoyable. These landmarks can be public fountains, famous shops, vistas, and good microclimate. For example: Participant X says she takes the route from her home to a friend's passing through street Y, because of window shopping and markets
- Discuss the different routes, and any underlying conditions that makes these walks enjoyable to the participants





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