

# URB401: Systems Approaches for Urban Transitions

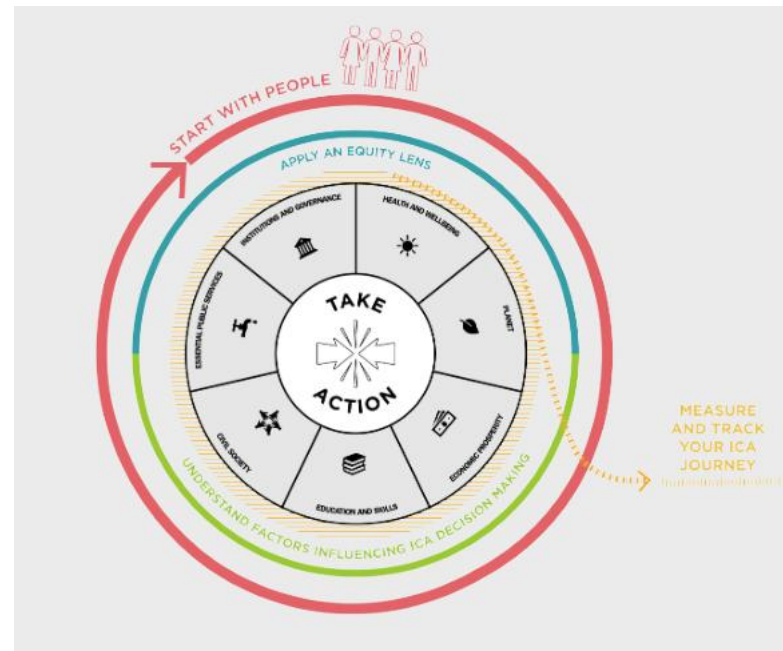
## Indicators

Hanbit Lee  
Simón Ladino Cano

October 1, 2025

- Understand the role of **indicators** in **monitoring** and **evaluating inclusive** climate actions.
- Learn to apply an **equity lens** when selecting and critiquing indicators.
- Practice **prioritizing** and **designing** indicators relevant to your City Lab project.

- Cities can drive ambitious climate action and be at the forefront of the fight against climate change
  - Put people at the heart of climate actions
  - Apply an equity lens
  - Conduct a diagnosis of existing city needs
  - Understand the political economy for action planning
  - Use evidence to track the journey

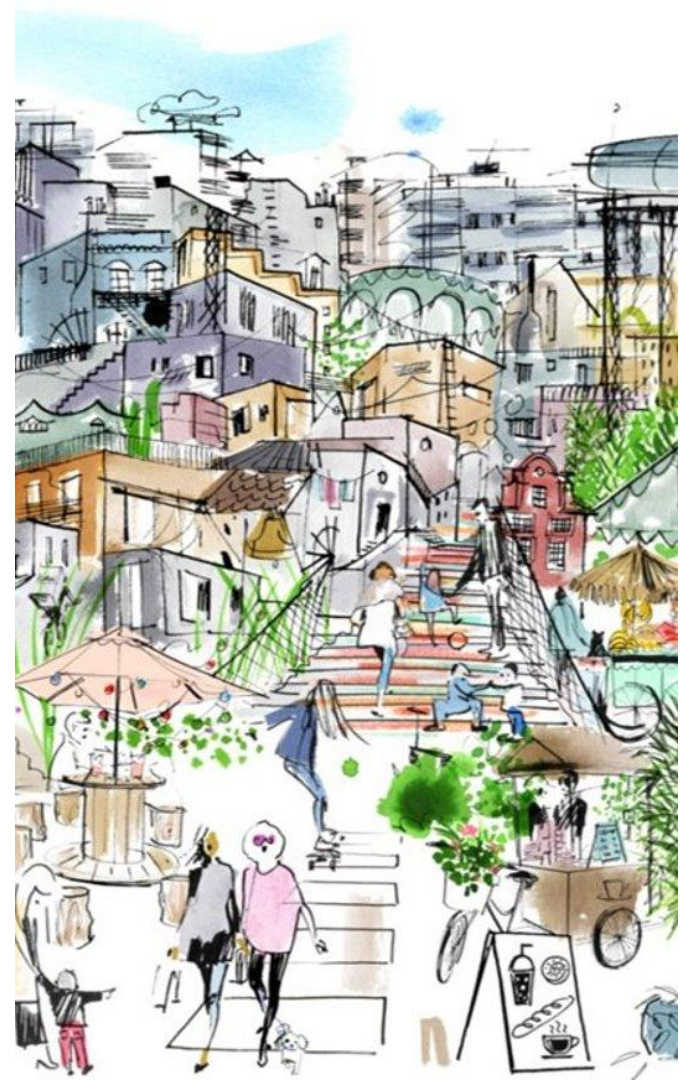


# Why use indicators?

- Facilitating learning across cities
- Encouraging participation and engagement
- Making the case for climate actions
- Enhancing transparency and accountability
- Improve the decision-making process

# Steps to identifying priority indicators

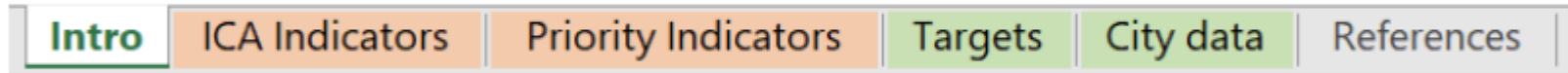
1. Understand monitoring and evaluation for climate action
2. Gather city data to set a baseline
3. Explore indicators across different city domains
4. Prioritize indicators for inclusive climate action
5. Set city specific targets to track progress



- Understand how the ICA indicator database can be a resource to a city's climate action planning
- Complete the city evaluation



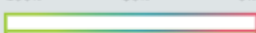




*a subset of approximately 50 priority indicators frequently used by cities and most relevant to common climate actions*

*Resources and activities to help cities use these targets and indicators*



*A catalogue of over 150 indicators frequently used in city and national-level datasets to track well-being, equity, and inclusivity*

# City Lab I: Exploring indicators

Sustainability issue or Domain <i>(with Subdomains)</i>	To what extent are you gathering data to track progress on this issue? <i>(Place the slider.)</i>	What is the form of this data? Provide indicator examples and mention if spatial or not	What are the barriers to collecting these data?	How might you address these barriers and what proxy data could be used?
 <b>Health and wellbeing</b> <i>(physical health, mental health, healthcare, work-life balance, peace and security)</i>	 100%      50%      0%			
 <b>Planet</b> <i>(air quality, water quality, soil quality, green infrastructure, environmental awareness)</i>	 100%      50%      0%			
 <b>Education and skills</b> <i>(education attainment, training and green jobs, education quality)</i>	 100%      50%      0%			
 <b>Economic prosperity</b> <i>(employment, economic innovation, income and poverty, prosperity)</i>	 100%      50%      0%			
 <b>Essential public services</b> <i>(energy, housing, solid waste, transportation, water and sanitation)</i>	 100%      50%      0%			
 <b>Civil society</b> <i>(neighborhood and community involvement, non-governmental organizations, technology and communication)</i>	 100%      50%      0%			
 <b>Institutions and governance</b> <i>(voter participation/ and representation, good governance mechanisms, land management, crime and justice)</i>	 100%      50%      0%			

- Use the 17 actions to find indicators that are most useful for your city
- For city's prior indicators, it is ideal to ensure all domains and sub-domains are reflected

No.	CLIMATE ACTION
1	Collective Purchase of Renewable Energy
2	Distributed Renewable Energy
3	New building standards, codes and regulations for energy and water conservation
4	Retrofitting programmes that improve both building efficiency and resiliency
5	Fuel switching, away from dirty fuels used for cooking and heating
6	Congestion pricing and Low Emissions Zones (LEZ)
7	Expansion or Improvement of Public Transportation Options
8	Electrification of vehicles, with focus on public transport and shared vehicles
9	Pursue transit-oriented, dense, and mixed-use development (TOD)
10	Improving waste management through segregation, recycling, and composting
11	Green infrastructure to manage flooding and for microclimate control
12	Water management techniques
13	Improving conditions in informal settlements for increased climate resilience
14	Improvement of emergency management and early warning systems
15	Climate resilient land use planning and infrastructure development
16	Sustainable Diets through Public Procurement
17	Expanding Walking and Cycling Options and Last-Mile Access to Transit Stations

# City Lab II: Prioritize indicators

Action	Benefits	Relevant indicator(s)	Inclusivity focus	How to disaggregate indicators for inclusivity?
Distributed renewables	Job training, increased green jobs	Number of green jobs created since baseline year	Women may face more barriers in the green/tech job market	Disaggregate green/tech jobs data by gender

- Record which data your city is collecting and how this information is being used to formulate and measure progress towards targets for inclusive and equitable climate action

2

## DISTRIBUTED RENEWABLE ENERGY

*Achieve 2 GW of solar PV installations by 2050*

*London, United Kingdom*

6

## CONGESTION PRICING AND LOW EMISSIONS ZONES (LEZ)

*Decrease drive alone commute trips by 50% by 2030*

*Pittsburgh, USA*

11

## GREEN INFRASTRUCTURE TO MANAGE FLOODING AND FOR MICROCLIMATE CONTROL

*Achieve 1m<sup>2</sup> of greenery per resident by 2030, equivalent to 160 hectares of new green spaces*

*Barcelona, Spain*

13

## IMPROVING CONDITIONS IN INFORMAL SETTLEMENTS FOR INCREASED CLIMATE RESILIENCE

*Comprehensive sewerage system will cover 99% of the city's territory by 2040*

*Quito, Ecuador*

14

## IMPROVEMENT OF EMERGENCY MANAGEMENT AND EARLY WARNING SYSTEMS

*Have a total of 12 million residents participate in disaster drills*

*Tokyo, Japan*

17

## EXPANDING WALKING AND CYCLING OPTIONS AND LAST-MILE ACCESS TO TRANSIT STATIONS

*Increase bicycle mode share from 3.5% to 8-10% between 2013 and 2018 and walking mode share from 17.5% to 21%*

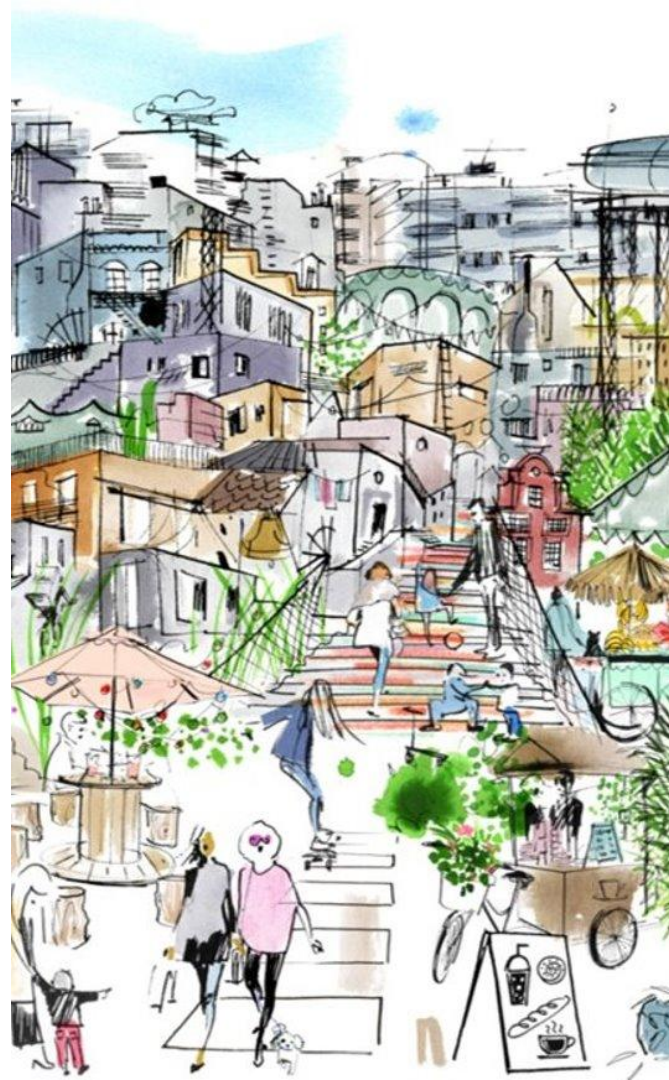
*San Francisco, USA*

# City Lab III: City specific targets

Key city-wide political ambitions and targets	Description of goal	ICA Indicators used to measure progress	Status	Source/ link to document

[C40 Cities Roadmap Indicator Module](#)

[C40 Cities Roadmap Indicator Database](#)





## Contact

[simon.ladinocano@epfl.ch](mailto:simon.ladinocano@epfl.ch)