

**C4O  
CITIES**

# EQUITY AND INCLUSION IN FINANCING CLIMATE ACTION



FINANCING  
SUSTAINABLE  
CITIES INITIATIVE

Citi Foundation



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01.

## KEY TERMS AND CONCEPTS

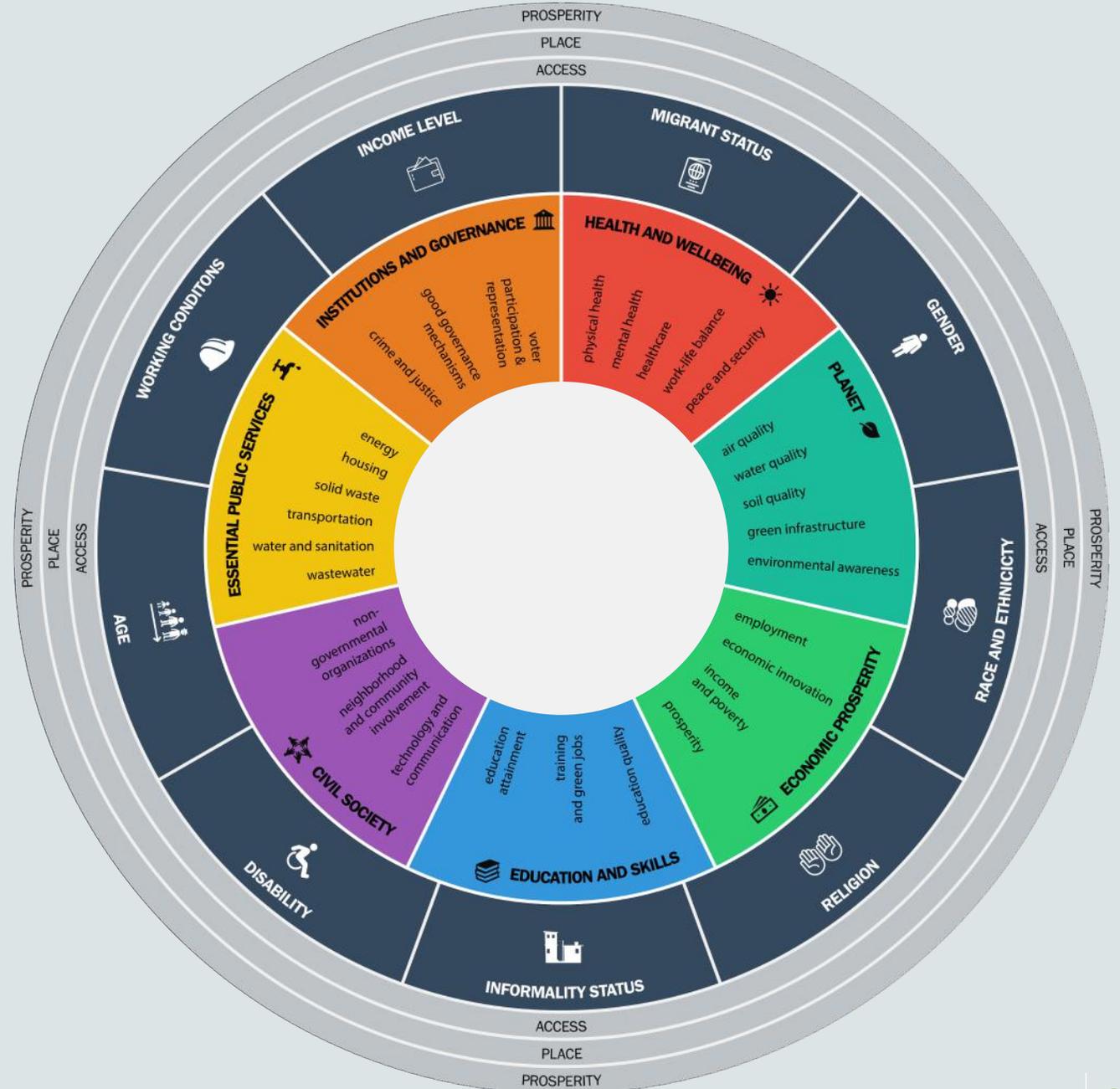
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# EQUITY

Equity is defined as the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically. It includes

- (i) deciphering key challenges around economic mobility and affordability
- (ii) addressing the distributional impacts of policies and action
- (iii) addressing any spatial inequalities



# INCLUSION

Inclusion is the practice of including relevant stakeholders and communities, particularly marginalised groups, in the policy-making and urban governance process, in order to ensure a fair policy process with equitable outcomes.

Inclusivity focus	Description
Gender	A social construct determining characteristics, roles and functions associated with being male and female
Race and ethnicity	Majority and minority cultural or ethnic groups, including religious backgrounds
Age	Age categories segmented depending on action, e.g., youth employment 15-24; accessibility for elderly 65+
Disability	Physical or mental impairment substantially limiting at least one major life activity
Location	Segmented by the location of residence relative to the local or national economy
Income	Income categories, defined relative to the local or national economy
Migrant status	Segmentation by locals, expatriates, documented or undocumented migrants, refugees, and asylum seekers
Living conditions	Living conditions affecting health, income levels, employment, and access to basic services
Occupation / working status	Segmented by occupation type and the working environment and circumstances affecting labour in the workplace, including job hours, physical aspects, legal rights and responsibilities
Literacy	Segmented by literacy levels, language spoken and digital access relative to the local or national economy

# FINANCING AND FUNDING

- Financing refers to obtaining and structuring the money needed to develop a project. It refers to how the upfront costs of the project are met.
- Funding refers to the mechanism through which financing is paid back and the money needed to operate and manage a project.

## FINANCING

### Public

- Government budget
- Public borrowing
- Grants

### Private

- Infrastructure companies
- Commercial banks
- Institutional investors

## FUNDING

### Government

- Subsidies

### User fees

- Tariffs and levies
- Tolls

### Others

- Land value capture mechanisms
- Community resources
- Assets – under-utilized or surplus

Source:

- Michael Lindfield, *Funding Investments in Sustainable Cities*
- UNESCAP <https://www.unescap.org/sites/default/files/ESCAP%20-%20Concluding%20slides.pdf>
- Institute for Government, *Explainer on Funding Infrastructure*, <https://www.instituteforgovernment.org.uk/explainers/funding-infrastructure>

02.

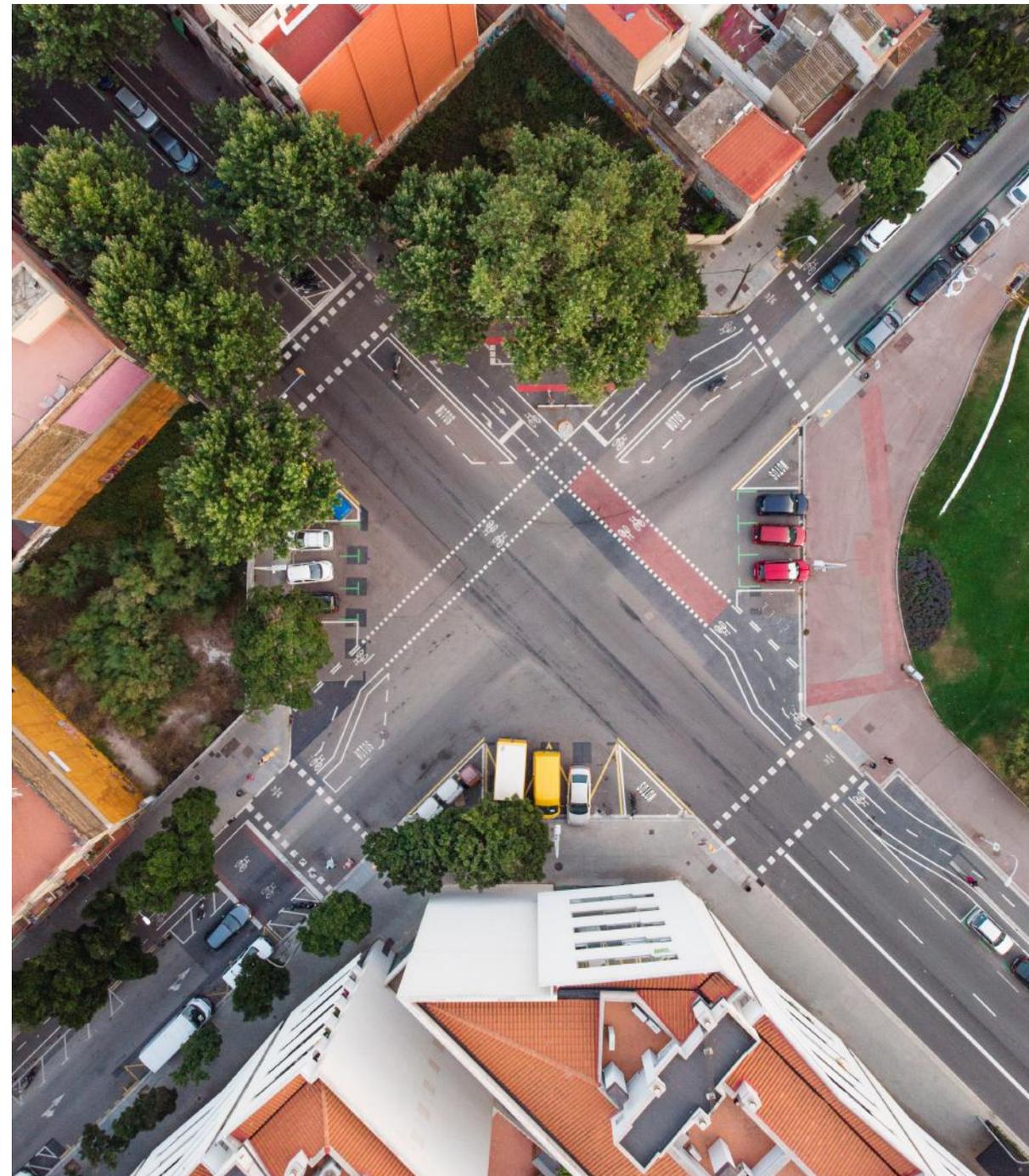
## ABOUT THIS TOOLKIT

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## PURPOSE

- This toolkit aims to provide concise, easy-to-read guidance to cities to integrate equity and inclusion considerations in municipal climate finance instruments and funding mechanisms.
- It is intended to enable cities to **identify and evaluate the equity and inclusion issues** in financing and funding mechanisms and **draw up a strategy** for addressing these challenges.
- It suggests 3 pillars and 5 steps for cities to integrate equity and inclusion in financing climate actions.



## HOW TO USE THIS TOOLKIT

- This toolkit focuses on the equity and inclusion implications resulting from the choice of climate financing options or funding mechanism, rather than equity and inclusion implications of climate action itself. To understand how to design and implement equitable and inclusive climate actions, refer to C40's [Inclusive Planning Roadmap](#).
- It is intended that the toolkit be updated over time building on experience in C40 cities and knowledge generated through C40's own work with cities. If you have information that could contribute to the development of this resource, please email [fsci@c40.org](mailto:fsci@c40.org)

This toolkit is for:

- City officials who need to evaluate equity and inclusion impacts when preparing strategies to finance climate relevant projects
- City representatives who wish to understand how decision on financing a climate relevant project impact the objectives of equity and inclusion
- Other municipal staff looking to further their understanding of how to promote inclusive climate action in cities.

It may also inform the work of:

- Local organisations, academics, city networks and civil society organisations who partner, collaborate, and advocate with municipal governments to achieve greater equity and inclusion in cities.

## WHY IT MATTERS

- Subnational governments have a significant role in climate-related spending and investment.
- 70% of the USD 90 trillion investments required in low emission infrastructure to 2030 is likely to be located in or to serve urban areas.
- Sub-national governments already account for 64 per cent of climate-related spending and investment<sup>4</sup>

### DEMAND FOR CLIMATE FINANCE IN CITIES

**Demand for  
low carbon  
investment**

USD 90 trillion of low-emission infrastructure to 2030<sup>1</sup>

**Share of  
cities in this  
investment**

70%<sup>2</sup> = USD 4.3–5.4 trillion per annum until 2030

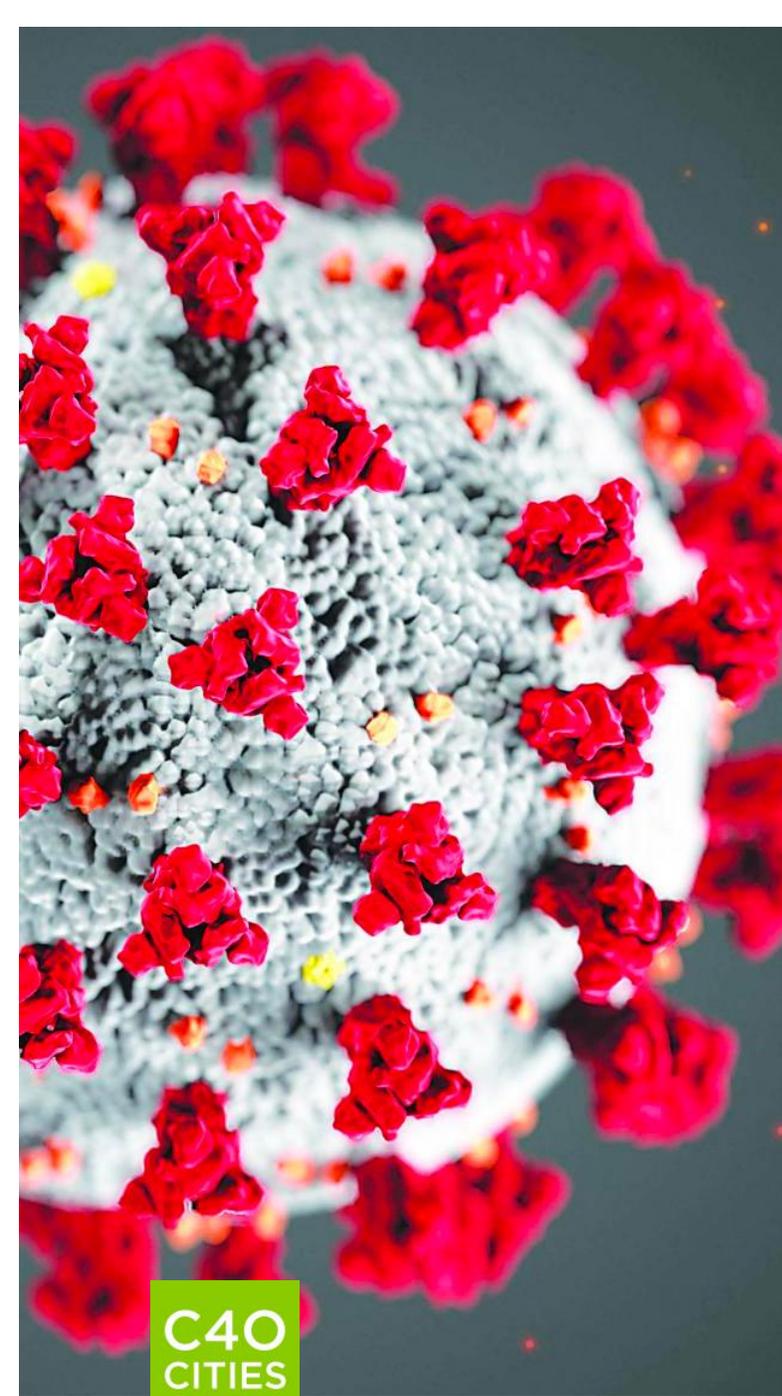
**Actual infrastructure  
spend in cities**

USD 2.5 trillion to \$3 trillion per year (half of the amount needed)

# WHY IT MATTERS

Cities can take an equity and inclusion lens to climate finance without compromising on financial viability.

- Equity and inclusion foster human well-being, social capital, sustainable communities and economic urban development, all of which increase a city's capacity to respond to climate change.<sup>5</sup>
- Climate financing and funding policies could have distributional impacts by disproportionately affecting some households, groups, and vulnerable populations, by either increasing their relative burden or reducing access to services and opportunities.
  - This could trigger new inequalities and/or intensify existing inequalities in cities.
  - For example, a carbon tax could be regressive if low-income households spend a greater share of their income on the commodity taxed.
- By applying the equity and inclusion lens to climate finance instruments and funding mechanisms, cities can understand how climate financing impacts, costs and benefits may be distributed across groups and distribute the costs and benefits more equitably.



## 2020 HIGHLIGHTS CONNECTIONS

Mainstreaming practices that promote equality within a green economy is as important today as it has ever been.

- Cities face the challenge of how to facilitate a green and just recovery from the COVID-19 pandemic.
- Those involved in addressing the climate crisis are also facing up to past failures and urgent responsibility to address systemic racism in the design and implementation of climate action.

## LIMITATIONS OF THIS RESOURCE

This toolkit is intended to draw out considerations that either eliminate the financing or funding option or need to be addressed through appropriate measures in the use of that option. It does not provide a universally applicable verdict for the mechanisms' impact on equity and inclusion.

This is because identifying the real-world equity and inclusion impacts of a mechanism depends on:

- **Context** i.e. where the mechanism is implemented. Different groups may need to be considered in different cities from an equity and inclusion perspective
- **The type of analysis** being conducted i.e. whether the analysis is focused on relative impact or absolute impacts
- **Criteria** used for evaluating equity e.g. access and availability, prosperity and affordability, or spatial inclusion amongst others<sup>6</sup>
- The **dimensions** along which equity is measured, for example <sup>12, 29</sup> (e.g. market equity, social equity, spatial or territorially)
- **Perception** of the merits of different distributional impacts and goals. For example: some may consider redistributing revenues to projects such as social housing, health care or education for low income groups as better outcomes than investment in and around areas where a fee is levied.

More detail on the limitations can be found in the Appendix (slide 68)

03.

## HOW TO INTEGRATE EQUITY AND INCLUSION IN FINANCING CLIMATE ACTION



# HOW CAN CITIES INTEGRATE EQUITY AND INCLUSIVITY IN THE PROCESS OF FINANCING CLIMATE ACTION?

C40 frames inclusive climate action in three core pillars:



## **Inclusivity/Equity in Process**

- Engaging stakeholders on potential financing and funding options as part of project design and as early as possible
- Conducting open and ongoing dialogues, with a wide range of communities and stakeholders, on the chosen financing and funding option to understand who is affected by the proposed options and how



## **Inclusivity/Equity In Policy**

- Designing a business model that ensures fairness in distributional consequences.
- Financial policy surrounding climate action accounts for disproportionate costs/benefits across groups, or underserved communities.



## **Inclusivity/Equity In Impact**

- Measuring, monitoring and evaluating both the direct impacts and the distribution of impacts

# 5 STEPS TO INTEGRATE EQUITY AND INCLUSION IN FINANCING CLIMATE ACTION

Notes:

- The applicability of this framework needs to be aligned to the climate action or project being financed.
- Not all steps may be applicable or necessary.
- This approach to integrating equity and inclusion in financing climate action is not different to that applied in the financing of any infrastructure projects at the city level. Examples covered in this toolkit include such projects.



## ENLIST OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES

- What options are available to the city?
- What are the desired equity and inclusion objectives?



## ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?



## ASSESS EQUITY AND INCLUSION IMPACTS FOR PREFERRED OPTION

- What are the equity and inclusion outcomes for the preferred option?  
*(Are there any additional or different financing or funding strategies which should be considered at this stage?)*



## OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?



## MEASURE AND MONITOR

- What is the impact on equity and inclusion over time?
- What, if any, course corrections need to be taken?
- What lessons can be shared?

# 1

## ENLIST OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES

- What options are available to the city?
- What are the desired equity and inclusion objectives?

### WHAT OPTIONS ARE AVAILABLE TO THE CITY?

- Draw up a list of financing or funding options available to the city by carefully weighing considerations related to suitability, feasibility, economic efficiency, legal feasibility, political acceptability, financial or regulatory constraints, access to capital markets, administrative feasibility, etc.

### WHAT ARE THE DESIRED EQUITY AND INCLUSION OBJECTIVES?

- Define and characterise equity and inclusion objectives and/or outcomes in line with the broader equity and inclusion outcomes that the city aspires for.
- Identify the types of potential equity and inclusion outcomes that should be evaluated

**+** Identify best practices from other cities to learn and support the exercise



# REMINDER

Equity and inclusion objectives can be<sup>7</sup>:

- **Distributional:**
  - Equity - Fairly distribute resources, benefits, and burdens
  - Inclusion - Prioritize resources for groups that experience the greatest inequities, disproportionate impacts, and have the greatest unmet needs
- **Structural:**
  - Equity - Make a commitment to correct past inequities and exclusion and prevent future unintended consequences
  - Equity/inclusion - Address the underlying structural and institutional systems that are the root causes of inequities and exclusion

EXAMPLES

1

ENLIST OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES

- What options are available to the city?
- What are the desired equity and inclusion objectives?

THE GREATER TORONTO AND HAMILTON AREA'S FUNDING PLAN FOR EXPANSION AND IMPROVEMENT OF TRANSPORTATION INFRASTRUCTURE<sup>8,9</sup> (1)

- The Greater Toronto and Hamilton Area (GTHA) was considering funding tools to support transportation expansion and improve transportation infrastructure in the Toronto region including to mitigate traffic congestion.
  - The options for revenue tools considered for this purpose included:
    - corporate income tax
    - development charges
    - employer payroll tax
    - fuel tax
    - high occupancy toll lanes
    - land value capture
    - parking levy
    - personal income tax
    - property tax
    - road pricing (highway tolls, congestion charges)
    - sales tax
    - transit fare increase
    - vehicle kilometres travelled fees
    - vehicle registration tax
- The GTHA assessed the equity and distributional impacts of each option.
  - It laid down health equity, vertical equity (impacts on various socio-economic groups) and horizontal equity (whether individuals targeted by the tools are also the beneficiaries of the uses of the funds) as some of the considerations for equity and inclusion.

### EXAMPLES

1

#### ENLIST OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES

- What options are available to the city?
- What are the desired equity and inclusion objectives?

#### SUSTAINABILITY BOND, PARIS<sup>20</sup>

- Paris issued a sustainability bond in November 2017 worth 320 million euros. The allocation of funds is reserved for projects which present environmental benefits and social benefits.
- In terms of environmental benefits the bond finances clean transportation, energy efficiency, renewable energy, and adaptation to climate change.
- In terms of social benefits, the bond finances:
  - Access to essential services for disadvantaged populations
  - Improvement in quality of life in disadvantaged neighborhoods
  - Social and solidarity economy
  - Social housing
- Projects are selected in line with the city's urban policy which favours investments in urban policy priority neighbourhoods according to the strategy established by the City Contract in 2015.
- The city has established clear criteria on the population targeted as well as the expected equity and inclusion outcomes.

## EXAMPLES

1

### ENLIST OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES

- What options are available to the city?
- What are the desired equity and inclusion objectives?

## SUSTAINABILITY BOND, PARIS<sup>20</sup>

Project categories	Definition	Sub-category	Objectives	Benefits
Access to essential services for the target populations	<ul style="list-style-type: none"> <li>▪ Population-groups: Homeless people, populations on a low income, young people, elderly people, people with disabilities, single-parent families</li> </ul>	<ul style="list-style-type: none"> <li>▪ Projects linked to the Parisian Pact against Exclusion: reception centres for homeless people, centres for integration through employment, reception centres for dependent elderly people, support to single-parent families, child protection, prevention, health protection</li> <li>▪ Accessibility for Persons with Reduced Mobility (PRM): investments linked to the City's objective to make 40% of its social housing accessible to PRM by 2020, as well as targeting 3% of accessible housing.</li> <li>▪ Projects linked to the "Elderly People in Paris" scheme: such as the development of EHPAD (housing establishment for dependent elderly persons) structures in Paris.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improve reception capacity</li> <li>▪ Improve accessibility</li> </ul>	<ul style="list-style-type: none"> <li>▪ Promote equal access to essential services</li> <li>▪ Fight against social exclusion and inequalities</li> <li>▪ Strengthen social cohesion and solidarity between territories and generations</li> </ul>
Quality of life in disadvantaged areas	<ul style="list-style-type: none"> <li>▪ Projects to improve the quality of life in Urban Policy Priority Neighborhoods, defined in the City Contract signed in 2015, and areas with the greatest socio-economic difficulties</li> </ul>	<ul style="list-style-type: none"> <li>▪ Access to education, culture, leisure and sport: investment in infrastructure for which the impact area includes a Priority Neighbourhood</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increase the network of education, culture, leisure and sports facilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fight against social exclusion and inequalities</li> </ul>
Social housing	<ul style="list-style-type: none"> <li>▪ Projects to increase the amount of social housing in order to meet the demands of Parisians</li> <li>▪ Target population: Low-income populations and Parisian students</li> </ul>	<ul style="list-style-type: none"> <li>▪ Investments contributing to achieve the annual production objective of 7000 to 7500 social housing units for the term of office (2015 - 2020)</li> <li>▪ Investments in new student housing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increase social housing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Promote access to housing for all</li> <li>▪ Reduce insecurity</li> </ul>

EXAMPLES

1

ENLIST OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES

- What options are available to the city?
- What are the desired equity and inclusion objectives?

CONGESTION PRICING PROPOSAL IN SEATTLE<sup>26</sup>

- When the city of Seattle was exploring congestion pricing as a way to address traffic congestion, reduce greenhouse gas emissions, and create a more equitable transportation system, the city identified 11 pricing options that have been used in other cities, their potential applicability to Seattle, and associated technologies, privacy considerations, and legal matters.
  - Cordon pricing
  - Area pricing
  - Fleet/Vehicle Class Pricing
  - Connected/autonomous vehicle zone
  - License plate based restriction zone
  - Road user charge
  - Arterial toll roads
  - Arterial express lanes
  - Fossil fuel free zone
  - On-street parking pricing
  - Off-street parking pricing
- The city conducted a preliminary screening of these options on four focus areas in line with larger City goals: equity, climate and health, traffic congestion, and implementation. In the case of equity, the criteria used as part of this preliminary screening exercise were as follows:
  - Potential to reinvest resources to enhance equity and affordability
  - Opportunity to increase and improve transportation options for low-income populations
  - Opportunities for inclusive decision-making around mobility options
- In its assessment, the City noted that this initial qualitative screening may be updated in line with community goals and desired outcomes during the assessment on suitability and applicability of a congestion price in the city.

# 2

## ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?

### HOW SHOULD EQUITY AND INCLUSION BE MEASURED?

- Identify groups that need to be considered from an equity and inclusion perspective
- Depending on project, financing instrument or funding mechanism, decide criteria for assessment or use a set of generic questions
- Decide the depth of assessment based on capacity, data and tools available – a simple screening of options against the defined criteria, a scoring for each option, or a more detailed, in-depth exercise
- Decide evaluation methodology or technique - whether assessment will be qualitative or quantitative

### WHAT ARE THE EQUITY AND INCLUSION IMPLICATIONS OF EACH OF THE CHOSEN OPTION

- Conduct comparative assessment of the equity and inclusion implications of all enlisted options

### IS THERE VARIATION IN OUTCOMES WITHIN DIFFERENT OPTIONS?

- Compare how outcomes vary by options. Rank options if possible



Choose a mechanism to take forward based on: feasibility, efficacy, and this equity-inclusion assessment



# REMINDER

In general, the high-level impact on equity and inclusion outcomes is assessed using the following two principles:

- **fairness-based on benefits received:** e.g. taxes or charges should be related to the benefits received from the service; and
- **fairness-based on ability to pay:** e.g. taxes or charges should be related to the ability to pay taxes\*<sup>10</sup>.

\*Horizontal equity requires that taxes are similar for those with similar ability to pay and vertical equity requires that taxpayers with greater ability pay relatively greater taxes

### ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?

### THE GREATER TORONTO AND HAMILTON AREA'S FUNDING PLAN FOR EXPANSION AND IMPROVEMENT OF TRANSPORTATION INFRASTRUCTURE <sup>8,9</sup> (1/5)

- The Greater Toronto and Hamilton Area (GTHA) used the following criteria to promote health equity in line with the criteria adopted by the Board of Health in Transportation Priorities and Investment for a Healthy Toronto:
  1. Does the proposed revenue tool ensure revenue collection for transportation does not place a disproportionate burden on people living on low-income?
  2. Does the proposed revenue tool provide affordable transit for people living on a low income?
  3. Does the proposed revenue tool maximize local economic growth and strengthen social infrastructure?
- It screened the options highlighted in the example in Step 1 against these criteria
- The screening focused on identifying direct potential health and equity impacts of each revenue tool in and of itself and not as part of a mix of revenue tools and transportation investments.
- The results of the screening exercise are presented on the following slides.

## HOW TO INTEGRATE EQUITY AND INCLUSION IN FINANCING CLIMATE ACTION

### ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?

### THE GREATER TORONTO AND HAMILTON AREA'S FUNDING PLAN FOR EXPANSION AND IMPROVEMENT OF TRANSPORTATION INFRASTRUCTURE <sup>8,9</sup> (2/5)

	Corporate income tax	Development charges	Employer payroll tax	Fuel tax	High occupancy toll lanes	Land value capture	Parking levy	Personal income tax	Property tax	Road pricing	Sales tax	Transit fare increase	Distance travelled fees	Vehicle registration tax
Ensure revenue collection for transportation does not place a disproportionate burden on people living on low-income	Positive	Neutral	Neutral	Negative	Neutral	Negative	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Negative
Provide affordable transit for people living on a low income	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Negative	Neutral	Neutral
Maximize local economic growth and strengthen social infrastructure	Neutral	Neutral	Neutral to Negative	Negative	Neutral	Neutral	Negative	Neutral	Neutral	Neutral	Negative to Neutral	Negative	Negative	Neutral

### ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?

### THE GREATER TORONTO AND HAMILTON AREA'S FUNDING PLAN FOR EXPANSION AND IMPROVEMENT OF TRANSPORTATION INFRASTRUCTURE <sup>8,9</sup> (3/5)

- Additionally, the GTHA also assessed each revenue tool against the criteria of vertical equity and horizontal equity.
- It scored each tool on a 5-point scale, with 5 as the best score and 1 as the worst.
- In instances where there were no quantifiable measures that could be used for scoring, scores were determined on the basis of professional judgment of those conducting the assessment.
- The scoring scale used for assessment was as follows:

## HOW TO INTEGRATE EQUITY AND INCLUSION IN FINANCING CLIMATE ACTION

### ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?

### THE GREATER TORONTO AND HAMILTON AREA'S FUNDING PLAN FOR EXPANSION AND IMPROVEMENT OF TRANSPORTATION INFRASTRUCTURE <sup>8,9</sup> (4/5)

Criteria	Score - 1	Score - 2	Score - 3	Score - 4	Score - 5
Horizontal equity	None of the groups targeted/ affected by the tool receive a benefit commensurate with the charge paid	Few of the groups targeted/ affected by the tool will receive the full benefit from the tool	Select groups targeted /affected by the tool will receive a benefit; however, other groups will benefit without being targeted directly	The majority of affected groups who bear the cost also benefit from the tool; some groups may benefit without being targeted directly	All affected groups who bear the cost burden also derive commensurate benefits from the tool
Vertical equity	Tool places a higher burden (in terms of proportion of income) on low-income groups	Lower income groups do not pay lower charges under this tool. So tool may represent a higher burden or proportion of income for low-income groups	Lower income groups sometimes pay lower charges under this tool, due to the lower value or quantity of their purchases (not to a lower charge rate)	Lower income groups often pay lower charges under this tool, due to the lower value or quantity of their purchases (not to a lower charge rate)	Lower income groups always pay lower charges under this tool, due to the lower value or quantity of their purchases (not to a lower charge rate)
Availability of alternatives	There are no practical alternatives to avoid this tool for groups targeted / affected	Few alternatives exist for groups targeted / affected by the tool; undue burden will be put on users looking to avoid the tool	Alternatives are available for targeted groups looking to avoid the tool, but likely in some form of modal shift	Alternatives exist; however, they may not be as convenient as the desired option	Equally suitable alternatives are conveniently available for groups targeted / affected by the tool

## HOW TO INTEGRATE EQUITY AND INCLUSION IN FINANCING CLIMATE ACTION

### ASSESS THE COMPARATIVE EQUITY AND INCLUSION IMPACTS

- How should equity and inclusion be measured?
- What are the equity and inclusion implications of chosen options?
- Is there variation in outcomes within different tools?

### THE GREATER TORONTO AND HAMILTON AREA'S FUNDING PLAN FOR EXPANSION AND IMPROVEMENT OF TRANSPORTATION INFRASTRUCTURE <sup>8,9</sup> (5/5)

The results of assessment using this scoring framework are presented below.

	Corporate income tax	Development charges	Employer payroll tax	Fuel tax	High occupancy toll lanes	Land value capture	Parking levy	Personal income tax	Property tax	Road pricing*	Sales tax	Transit fare increase	Vehicle kilometres travelled fees	Vehicle registration tax
Horizontal equity	2	3	3	4	5	4	3	2	2	4	2	4	4	3
Vertical equity	5	3	5	3	3	5	3	5	3	3	3	1	3	3
Availability of alternatives	1	2	1	3	5	2	3	1	1	2	2	2	2	3

# 3

## ASSESS EQUITY AND INCLUSION IMPACTS FOR PREFERRED OPTION

- What are the equity and inclusion outcomes for the preferred option? *(Are there any additional or different financing or funding strategies which should be considered at this stage?)*

### WHAT ARE THE EQUITY AND INCLUSION OUTCOMES FOR THE PREFERRED OPTION?

- Identify and segment all the potential groups that are impacted or benefit from the instrument or mechanism
- Establish assessment framework by customising the approach and criteria
- Gather baseline data
- Assess the scale of costs and direct incidence or burden for different groups and in particular for groups that are obligated to make payments and therefore incur costs
- Understand the potential unintended consequences
- Quantify findings wherever possible using modelling techniques

+ Are there any additional or different financing or funding strategies which should be considered at this stage?

### ASSESS EQUITY AND INCLUSION IMPACTS FOR PREFERRED OPTION

- What are the equity and inclusion outcomes for the preferred option?

*(Are there any additional or different financing or funding strategies which should be considered at this stage?)*

#### Example – Ultra Low Emission Zone in London<sup>16, 17</sup>

- London operates a Ultra Low Emission Zone (ULEZ) in Central London to reduce emissions from road transport, to help improve air quality and to encourage cleaner vehicles to drive in Central London.
- Under this scheme, most vehicles, including cars and vans, need to meet the ULEZ exhaust emissions standards or their drivers must pay a daily non-compliance charge to drive within the zone
- As part of its proposal to create this ULEZ and levy the non-compliance charge, Transport for London undertook assessments to identify and determine impacts on different equality groups to investigate the extent to which ULEZ enhanced equality and social inclusion.
- TfL laid down two sub-objectives for this purpose:
  - to ensure no protected and disadvantaged residents of London receive disproportionate or differential adverse impacts from traffic, emissions and noise as a result of the scheme
  - to give all users and potential users equal opportunity to access the London transport system and sustainable transport choices
- It assessed potential positive and negative impacts of the ULEZ by segmenting the population by age, disability, gender, race, pregnancy and maternity, religion or belief, sexual orientation and socio-economically deprived.

### ASSESS EQUITY AND INCLUSION IMPACTS FOR PREFERRED OPTION

- What are the equity and inclusion outcomes for the preferred option?

*(Are there any additional or different financing or funding strategies which should be considered at this stage?)*

#### Example – Ultra Low Emission Zone in London<sup>16, 17</sup>

- The assessment was conducted using baseline data compiled from a wide range of sources including Census 2011, and TfL surveys and research, with impacts being determined using a combination of behavioural modelling, surveys, traffic modelling and air quality modelling undertaken by TfL and King's College London, Geographical Information Systems mapping and technical professional judgement.
- Potential impacts were identified as positive, negative or neutral and either disproportionate or differential, with:
  - a differential equality impact defined as one which affects members of a protected group differently from the rest of the general population because of specific needs or a recognised sensitivity or vulnerability associated with their protected characteristic; and
  - a disproportionate impact defined as one which has a proportionately greater impact on members of an equality group than on other members of the general population at a particular location (area).

### ASSESS EQUITY AND INCLUSION IMPACTS FOR PREFERRED OPTION

- What are the equity and inclusion outcomes for the preferred option?

*(Are there any additional or different financing or funding strategies which should be considered at this stage?)*

#### Example – Congestion charge in Stockholm<sup>18, 19</sup>

- Stockholm introduced a congestion charge in 2007, initially covering the inner city but now also covering the western bypass of Stockholm.
- The charge was formulated to reduce traffic and queuing/congestion, reduce related emissions and improve the urban environment.
- A seven-month trial project was implemented from January 2006 to test whether the efficiency of the traffic system could be enhanced by congestion charges, evaluate the experience of the trial, and make decisions on the policy thereafter.
- The revenue raised during the trial period was dedicated to public transit improvements in the Stockholm region.
- Program improvements have also included 18 new regional bus lines and 2,800 new regional park-and-ride spaces.
- As part of the comprehensive evaluation and impact assessment of this trial, Stockholm also assessed the equity effects of the congestion charge.
- To address the debate around equity before the introduction, the city decided to do both ex-ante and ex-post evaluations.

### ASSESS EQUITY AND INCLUSION IMPACTS FOR PREFERRED OPTION

- What are the equity and inclusion outcomes for the preferred option?

*(Are there any additional or different financing or funding strategies which should be considered at this stage?)*

#### Example – Congestion charge in Stockholm<sup>18, 19</sup>

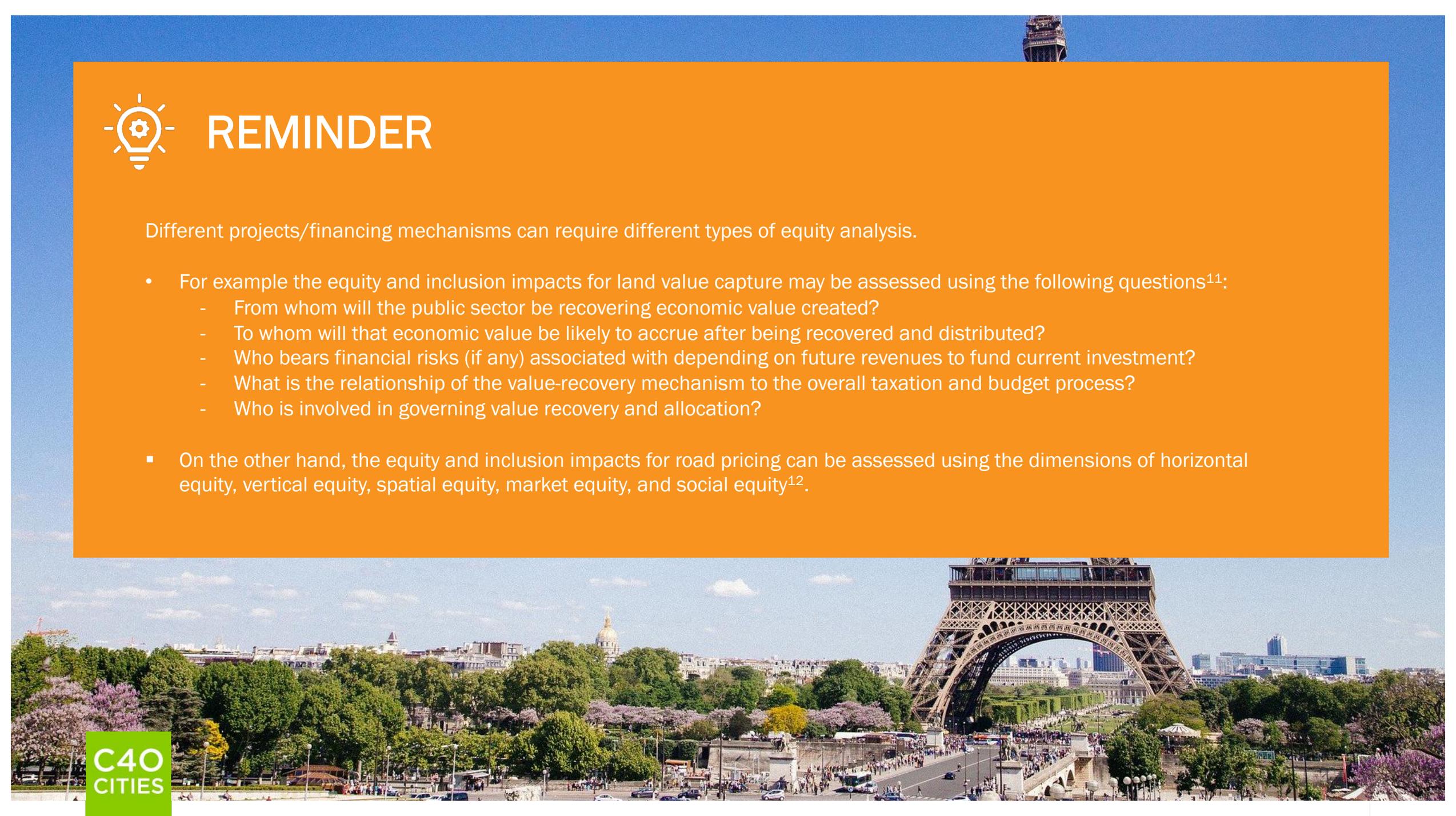
- The city examined the impact of the congestion charge on the direct road-user, effects of the congestion tax, or the effects that directly affect how citizens travel via changes in travel time, costs of paid congestion tax and costs of adapting travel practices.
- Among the key findings, the city learned:
  - High-income individuals were affected more than low-income;
  - Men paid 65% more congestion prices than women;
  - Relatively few drivers paid the majority of congestion charges – but most paid occasionally;
  - Journeys in central areas were shorter, with a lower percentage by car.
- The analysis examined the equity impacts of the congestion charge by segmenting the population by gender, residential area, income categories, type of occupation, type of household, age groups, and origin (native birth or foreign birth)
- The revenue from the congestion charge under the permanent program was split between central city transit and suburban highway projects. In addition to serving the updated transport priorities, this also addressed some equity concerns raised by suburban residents who felt unfairly taxed during the trial.



# REMINDER

Different projects/financing mechanisms can require different types of equity analysis.

- For example the equity and inclusion impacts for land value capture may be assessed using the following questions<sup>11</sup>:
  - From whom will the public sector be recovering economic value created?
  - To whom will that economic value be likely to accrue after being recovered and distributed?
  - Who bears financial risks (if any) associated with depending on future revenues to fund current investment?
  - What is the relationship of the value-recovery mechanism to the overall taxation and budget process?
  - Who is involved in governing value recovery and allocation?
- On the other hand, the equity and inclusion impacts for road pricing can be assessed using the dimensions of horizontal equity, vertical equity, spatial equity, market equity, and social equity<sup>12</sup>.



# 4

## OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?

### WHAT STRATEGIES ARE NEEDED TO MITIGATE NEGATIVE IMPACT AND ENHANCE EQUITY AND INCLUSION?

- Develop a strategy to mitigate the negative effects of the chosen option on the identified communities and groups and enhance equitable and inclusive outcomes.
  - Depending on the context, options could include (i) revenue redistribution to ease the impact on already disadvantaged groups to achieve fairness, (ii) earmarking revenues for projects that enhance equity and inclusion, and (iii) offering or improving alternative services.
- Identify policies and strategies that could complement the chosen option to enhance equity and inclusion.
- Determine the need for engaging legislators, regulators and regional or national governments on remediation strategies that deliver the most equitable and inclusive outcomes but are beyond the remit of the city or are not permitted by legislation or regulations (e.g. national subsidy programme).

### WHAT IS THE GOVERNANCE AND MONITORING PROCESS?

- Establish the relationship of the funding mechanism to the overall taxation and budget process.
  - If revenues are going into the overall budget, does this limit the ability to mitigate negative impacts on equity and inclusion?
  - Determine whether legislative oversight might prompt better and different decisions about how to extract and distribute value.
- Establish the institutional framework for monitoring equity and inclusion

### OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?

#### Example – Congestion charge in London, Stockholm and Milan<sup>21</sup>

- Redistribution of revenues from congestion charges to low-carbon transport investments that are most appropriate for the city:
  - London increased the frequency and added 14,000 new bus seats, accommodating the 18% increase following from charges
  - Stockholm added 18 new regional bus lines and 2,800 new regional park-and-ride spaces following charges
- Exemptions and discounts for people with disabilities or for necessary trips such as medical emergencies:
  - London, Stockholm and Milan allow people with a valid disability to register for an exemption from the charge

### OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?

### Example – Betterment levy in Bogotá<sup>23</sup>

- Colombia established a contribución de valorización (contribution to betterment) way back in the 1920s to finance public works and contribute to municipal revenues.
- In the case of Bogotá, the levy equals the cost of the project and is assessed on all properties affected by a given project (or set of projects) and is calculated by multiplying different benefit factors such as (i) improvement in mobility resulting in greater transit speeds, lower transit time, lower operating costs, and higher quality of life; (ii) improvement in urban planning resulting in better use of public space; (iii) changes generated in land use and stimulation of productive and commercial activities; and (iv) greater market value of nearby real estate properties
- This levy has funded almost half of the arterial road network that includes the bus lines and dedicated stations of the city's Bus Rapid Transport system.
- The levy is assessed by taking into account the capacity of the property owners to pay, thereby protecting low income property owners.
- Affordability is based on data from household income and expenditure surveys.
- Sometimes a comparative analysis is made between the betterment levy and other charges, e.g. the relationship between the levy and the utilities paid by the property owner, or the relation between the levy and the property tax.

### OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?

#### Example – Land value Capture in São Paulo<sup>22</sup>

- The city of São Paulo has regularly raised funds for urban infrastructure (including those with climate benefits such as public transit, bicycle lanes, and pedestrian projects) by auctioning out tradable air rights called Certificados de Potencial Adicional de Construção (Certificates of Additional Construction Potential or CEPACs)
- Within the context of vertical growth and city expansion, developers hoping to build at higher-than-permitted densities gain additional floors through these air rights, which allow for changes to height and density in exchange for financial compensation towards social benefits.
- Revenues from CEPAC auctions are deposited in into an urban development fund known as FUNDURB.
- The management council of FUNDURB comprises public-sector staff and civil society representatives and approves the allocation of revenues and supervises the approval of resources.
- Approval and oversight of projects by FUNDURB serves to ensure a better spatial distribution of infrastructure investments throughout the city (as opposed to investments in high-income neighbourhoods where development is occurring) so that the entire city gains from the benefits of the urbanization process and to prioritise resources in the periphery of the city.

### OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?

#### Example – Transportation System Development Charge, Portland, Oregon<sup>31, 32, 33</sup>

- Portland levies a transportation system development charge (TSDC) on new developments and property-use changes to mitigate the transportation impacts of new developments or property use by augmenting the transportation-system capacity.
- Oregon’s legislations and Portland’s laws require that the TSDC is used to fund projects that increase the capacity of Portland’s transportation system i.e. only for capital expenditures. It cannot be spent on ongoing operation and maintenance expenses.
- The TSDC is charged on all new developments and property-use changes that increase trip generation within the city.

### OPTIMISE PREFERRED TOOL

- What strategies are needed to mitigate negative impact and enhance equity and inclusion?
- What is the governance and monitoring process?

#### Example – Transportation System Development Charge, Portland, Oregon<sup>31, 32, 33</sup>

- The city addresses vertical equity concerns i.e. concerns on affordability to pay by allowing exemptions for affordable housing as follows:
  - For affordable rental projects:
    - Developments must serve households earning at or below 60 percent of the median family income (MFI) adjusted for household size with a maximum debt burden of 30 percent for a 60-year period.
    - If a proposed rental housing development has units that do not meet the above requirements or include a commercial component, the actual exemptions are prorated as applicable to the residential portion of the development subject to the affordable-housing restrictions.
  - For affordable homeownership projects:
    - Developments must serve households at or below 100% of the Median Family Income (MFI) for a family of four (currently \$92,100 and adjusted annually; adjusted upward for households of more than four people).
    - Units must sell for less than the price cap provided by City Code, Section 3.102.090 D (2020 price cap is \$405,000.)
    - Units must sell to homebuyers who will occupy the homes as the initial occupants. Properties receiving homeownership exemptions may not be rented.

# 5

## MEASURE AND MONITOR

- What is the impact on equity and inclusion over time?
- What, if any, course corrections need to be taken?
- What lessons can be shared?

### WHAT IS THE IMPACT ON EQUITY AND INCLUSION OVER TIME?

- Establish systems to measure and monitor the impact of financing instrument or funding option on equity and inclusion
- Collect relevant data to measure and monitor the the impact on equity and inclusion. Such data could include amount of revenues raised, the distribution of costs relative to ability-to-pay of different communities, change in access to services and opportunities, quantitative results from complementary policies,
- Undertake a comprehensive assessment of the equity and inclusion effects on a regular basis
- Assess whether the remediation measures successfully address equity and inclusion differences

### WHAT, IF ANY, COURSE CORRECTIONS NEED TO BE TAKEN?

- Draw lessons to review and modify strategy to mitigate the negative effects on equity and inclusion. Focus on groups previously not considered as being affected.
- Design additional policies or strategies to minimise inequity and exclusion

### WHAT LESSONS CAN BE SHARED?

- Share successes and lessons learned within the city administration to replicate, improve and accelerate equity and inclusion in and via financing of other climate actions. Share lessons with other cities

### MEASURE AND MONITOR

- What is the impact on equity and inclusion over time?
- What, if any, course corrections need to be taken?
- What lessons can be shared?

### Example - Congestion charge in London<sup>13</sup>

- Congestion Charging was introduced into central London in February 2003 as part of the then Mayor's Transport Strategy. From the introduction of the plan until 2008, Transport for London (TfL) produced detailed annual impacts monitoring reports describing the impacts of congestion charging in and around central London.
- The objective of this monitoring was to evaluate and understand the transport, economic, social and environmental impacts of the charge.
- In order to support this monitoring, conditions before charging across a range of key indicators were set out, and information was given describing how and when any changes to these indicators would be measured.
- As part of the social impacts, TfL evaluated and monitored the impact on the following:
  - Changes in access to services
  - Affordability of travel
  - Social interaction with friends and family
  - Key workers such as but not limited to teachers, police officers and community support officers, staff in fire and rescue services, healthcare workers
  - Shift workers
  - Disabled people and carers

### MEASURE AND MONITOR

- What is the impact on equity and inclusion over time?
- What, if any, course corrections need to be taken?
- What lessons can be shared?

### Example - Participatory budgeting for resilience strategy in Quito<sup>14</sup>

- In 2016, Quito prioritised resident inclusivity and empowerment in its resilience strategy through participatory budgeting, where community members allocate public budgets to their neighbourhoods, reflecting community priorities and needs.
- After the implementation of the Participatory Budget Program, the Municipal Citizen Participation (MCP) team expressed concern that the program was dominated by powerful stakeholders and vulnerable groups were not participating adequately.
- In late 2016-17, Quito conducted a Preliminary Resilience Assessment to understand barriers to participation from vulnerable groups and how participation could be increased.
- Working sessions with field staffs via conferences, interviews and webinars along with a desktop review found extensive paperwork to become a delegate, public speaking, free time, transportation costs and delegate-only voting were significant barriers;

### MEASURE AND MONITOR

- What is the impact on equity and inclusion over time?
- What, if any, course corrections need to be taken?
- What lessons can be shared?

### Example - Participatory budgeting for resilience strategy in Quito<sup>14</sup>

- Based on the findings of this measuring and monitoring exercise, a number of actions were taken:
  - The process for ideas and vote has been opened up to make it in person and online;
  - Language has been simplified to make it easier for residents to participate
  - Alternative avenues are provided where online voting is not possible;
  - Awareness and communications activities to create a buzz about participatory budgeting
- As a result, all residents can propose ideas and vote on ideas online;
- The MCP team continues to supplement resident engagement with focused outreach to vulnerable groups and others who cannot participate online

04.

## WORKED EXAMPLES

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WORKED EXAMPLE

# CONGESTION CHARGING

## 1(A). IDENTIFY PRICING TOOLS

- Identify options i.e. potential pricing tools available to the city on the basis of potential applicability to your city
- Consider practices/examples from other cities

## 1(B). DEFINE EQUITY AND INCLUSION OUTCOMES

- Define the types of equity and inclusion that matter in the context of the city and the stakeholder groups.
- Determine how the above defined equity and inclusion be measured.
- Identify data requirement and data availability to support the assessment of equity and inclusion outcomes of the different pricing tools..

## 2. IDENTIFY WHO AND WHERE

- Identify the stakeholder groups or populations that could potentially be affected from the congestion charge and that need to be considered from an equity perspective, the proposed tools for further study and evaluation, and the geographic boundaries of the study area
- Define the geographic area based on factors such as the existing transportation network, the location of vulnerable populations, and key destinations accessed by identified populations groups

*Note: The Initial geographies may help to identify who should be the focus of the public engagement plan and partnerships for developing an equitable program.*



WORKED EXAMPLE

# CONGESTION CHARGING

## 3. DETERMINE BENEFITS AND BURDENS

- Determine the scale of impacts on the types of equity and inclusion chosen for the identified stakeholder groups
- Identify the extent to which these impacts help or hurt vulnerable populations
- Determine the impact of the pricing tool (s) on affordability, accessibility, and community health
- Use modelling techniques such as transportation modelling, financial modelling and environmental modelling to determine impacts on the types of equity and inclusion outcomes chosen for analysis

## 4. CHOOSE APPROACHES TO ADVANCE EQUITY AND INCLUSION

- Identify policies and measures to mitigate or minimise significant equity and inclusion impacts on stakeholder groups, in particular on vulnerable populations.
- identify the policies and measures that maximise equity and inclusion and increase opportunity
- Identify any other kinds strategies or actions that may be implemented in line with the desired equity and inclusion outcomes
- Note: Remediation strategies generally fall under one of three categories listed below:
  - Revising existing finance pricing policies;
  - Offering exemptions, discounts, subsidies, or rebates to parties adversely affected by the policy; or
  - Offering or improving alternative transportation services



WORKED EXAMPLE

# CONGESTION CHARGING

## 5. PROVIDE ACCOUNTABLE FEEDBACK AND EVALUATION

- Monitor and evaluate the equity and inclusion outcomes within a reasonable timeframe
- Assess whether the remediation measures successfully address equity and inclusion differences
- Modify the pricing tool or the remediation policies and measures to better address equity and inclusion
- Identify agreed-upon mechanisms for providing feedback to the community and decision-makers regarding both the successes and shortcomings
- Communicate the results of monitoring and evaluation clearly and consistently with affected groups



WORKED EXAMPLE

# LAND VALUE CAPTURE

## 1. IDENTIFY LAND VALUE CAPTURE MECHANISMS

- Identify options i.e. potential land value capture mechanisms available to the city on the basis of potential applicability to your city
- Consider practices/examples from other cities

## 2. DETERMINE BENEFITS AND BURDENS<sup>30</sup>

- Identify stakeholder groups from whom the public sector will be recovering the economic value created as a result of actions or infrastructure/public-realm investments
- Consider how closely does the mechanism relate fee/charge borne by potential contributors to the scale of the benefits which they receive
- Identify to whom will the economic value be likely to accrue after being recovered and distributed
- Consider who bears financial risks (if any) associated with depending on future revenues to fund current investment



WORKED EXAMPLE

# LAND VALUE CAPTURE

### 3. DEVELOP EQUITABLE AND MITIGATION STRATEGIES

- Identify policies and measures to mitigate or minimise significant equity and inclusion impacts on stakeholder groups, in particular on vulnerable populations.
- Identify the policies and measures that maximise equity and inclusion and increase opportunity
- Identify any other kinds strategies or actions that may be implemented in line with the desired equity and inclusion outcomes
- Establish eligible uses of funds and restrictions on uses as permitted under legislations/regulations i.e. where can revenues can be spent and what they can be spent on
- Engage legislators, regulators and regional or national governments on redistribution strategies that deliver most equitable and inclusive outcomes but are beyond the remit of the city

### 4. ESTABLISH GOVERNANCE MECHANISM

- What is the relationship of the value-recovery mechanism to the overall taxation and budget process?
- Who is involved in governing value recovery and allocation of revenues recovered?
- How will the responsible authority ensure fair and transparent disbursement of funds?



WORKED EXAMPLE

# LAND VALUE CAPTURE

## 5. PROVIDE ACCOUNTABLE FEEDBACK AND EVALUATION

- Monitor and evaluate the equity and inclusion outcomes within a reasonable timeframe
- Assess whether the remediation measures successfully address equity and inclusion differences
- Consider remediation policies and measures to better address equity and inclusion
- Identify agreed-upon mechanisms for providing feedback to the community and decision-makers regarding both the successes and shortcomings
- Communicate the results of monitoring and evaluation clearly and consistently with affected groups

05.

## RECAP AND IMPLEMENTATION CHECKLIST

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# IMPLEMENTATION CHECKLIST

Yes/No  
If no, then who is doing it? By when will this be done?

STEP 1 ENLISTING OPTIONS & DEFINE EQUITY AND INCLUSION OUTCOMES		
1.1	<b>Enlist Options</b>	
	Have you considered all available options to the city?	
	Have you looked at what other cities have done to learn from their experience of measuring equity and inclusion?	
1.2	<b>List desired equity and inclusion objectives</b>	
	What are the equity and inclusion objectives and/or outcomes that the city has been working towards? What equity and inclusion outcomes are important for the city?	
STEP 2 ASSESSING THE COMPARATIVE EQUITY AND INCLUSION IMPACTS		
2.1	<b>Define equity and inclusion outcomes</b>	
	What types of equity matter? What are the desired inclusion outcomes?	
	How will equity and inclusion be measured? Will it be quantitative or qualitative?	
	Have you defined the methodology?	

## IMPLEMENTATION CHECKLIST

		Yes/No If no, then who is doing it? By when will this be done?
<b>2.2</b>	<b>Identify stakeholder groups</b>	
	What stakeholder groups are important in this context?	
	Should priority be given to certain populations? Why?	
	Have you specifically identified vulnerable groups?	
<b>2.3</b>	<b>Assessing the equity and inclusion outcomes for the options</b>	
	Have you finished the assessment and comparison of equity and inclusion implications of chosen options?	
	Have you identified the option that you want to take forward for further consideration?	
<b>STEP 3</b>	<b>ASSESSING AND COMPARING THE EQUITY AND INCLUSION OUTCOMES FOR THE PREFERRED OPTION</b>	
<b>3.1</b>	<b>Identify stakeholder groups</b>	
	What stakeholder groups may potentially be impacted by the proposed climate finance instrument or funding mechanism?	
	What criteria was used to identify stakeholders groups?	
	Should priority be given to certain populations? Why?	
	Have you specifically identified vulnerable groups?	

## IMPLEMENTATION CHECKLIST

		Yes/No If no, then who is doing it? By when will this be done?
<b>3.2</b>	<b>Evaluate equity and inclusion outcomes for the options</b>	
	Have you established the assessment framework or methodology?	
	Have you considered what type of data will be required? Is this data readily available or does it need to be collected?	
	Do you have the data you need for this assessment?	
	Have you completed the assessment?	
<b>STEP 4</b>	<b>OPTIMISE PREFERRED TOOL</b>	
<b>4.1</b>	<b>Identify strategies to mitigate negative impact and enhance equity and inclusion</b>	
	What strategies are most promising to mitigate the negative effects of the chosen option on the identified communities and groups and enhance equitable and inclusive outcomes?	
	Are there any other policies or strategies that could improve equity and inclusion outcomes?	
	Are there restrictions on uses or redistribution of revenues? If yes, how can these be overcome?	
	Is there a need to engage legislators, regulators and regional or national governments on redistribution or remediation strategies that deliver most equitable and inclusive outcomes because these are beyond the remit of the city	

## IMPLEMENTATION CHECKLIST

		Yes/No If no, then who is doing it? By when will this be done?
4.2	<b>Establish governance</b>	
	Who is responsible for determining if the goals of equity and inclusion have been met?	
	Who is responsible for providing continuous oversight of equity and inclusion outcomes?	
<b>STEP 5</b>	<b>MEASURE AND MONITOR</b>	
5.1	<b>Measure the impact on equity and inclusion over time</b>	
	Have you established monitoring oversight?	
	Have you established the framework or methodology for measuring impact on equity and inclusion?	
	Have you considered the time frame for this?	
	Have you considered what type of data will be required and how will it be collected?	
	Have you completed the assessment?	
5.2	<b>Determine course corrections</b>	
	Do you need to make changes to the finance instrument or funding tool following the assessment?	
	What do you need to do to make changes? Who should be involved? What is the process?	

## IMPLEMENTATION CHECKLIST

IMPLEMENTATION CHECKLIST		Yes/No If no, then who is doing it? By when will this be done?
5.3	Share lessons	
	Have you shared lessons within the city administration and city agencies?	
	Have you shared lessons and experiences with other cities?	

06.

## REFERENCES

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## REFERENCES

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1. The 2018 Report of the Global Commission on the Economy and Climate. <https://newclimateeconomy.report/2018/misc/downloads/>
2. Presentation by Priscilla Negreiros, Climate Policy Initiative to the UNFCCC 2019 Forum of the Standing Committee on Finance “Climate Finance and Sustainable Cities” Available at <https://unfccc.int/sites/default/files/resource/Session%201%20Priscilla%20CPI.pdf>. Accessed on May 2 at 11.19 am
3. Computed on the basis of figures in (1)
4. OECD/The World Bank/UN Environment (2018), *Financing Climate Futures: Rethinking Infrastructure*, OECD Publishing, Paris. <https://doi.org/10.1787/9789264308114-en>
5. Vivid Economics based on (1) Reckien, D., Lwasa, S., Satterthwaite, D., McEvoy, D., Creutzig, F., Montgomery, M., Schensul, D., Balk, D., and Khan, I. “Equity, Environmental Justice, and Urban Climate Change,” 2018; C40 Cities, “Inclusive Planning Executive Guide,” 2019.
6. Inclusive Planning Roadmap Needs Assessment Module, [https://cdn.locomotive.works/sites/5ab410c8a2f42204838f797e/content\\_entry5ab410fb74c4833febe6c81a/5d935831b8f2fb0080030ebb/files/Needs\\_Assessment\\_Module\\_update-Jan2020.pdf?1583852055](https://cdn.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ab410fb74c4833febe6c81a/5d935831b8f2fb0080030ebb/files/Needs_Assessment_Module_update-Jan2020.pdf?1583852055)
7. Urban Sustainability Directors Network, Guide to Equitable, community-driven climate preparedness planning , may 2017
8. Toronto Public Health. Revenue Tools for Transit Expansion: A Screening Level, Equity-Based Health Impact Assessment, May 2013. <https://www.toronto.ca/wp-content/uploads/2017/10/9693-TPH-revenue-tool-transit-expansion-report-2013.pdf> Accessed on May 6 at 12.19 pm
9. AECOM (2013). Big Move Implementation Economics: Revenue Tool Profiles, Technical report, AECOM in association with KPMG LLP, prepared for Metrolinx, an agency of the Government of Ontario . 60236189. [http://www.metrolinx.com/en/regionalplanning/funding/IS\\_Appendix\\_A\\_EN.pdf](http://www.metrolinx.com/en/regionalplanning/funding/IS_Appendix_A_EN.pdf) Accessed on May 6 at 12.25 pm
10. Vivid Economics based on *Enid Slack, “Alternative Approaches to Taxing Land Real Property”*.
11. Laura Wolf-Powers, Reclaim Value Capture for Equitable Urban Development, 28 May 2019, <https://www.metropolitiques.eu/Reclaim-Value-Capture-for-Equitable-Urban-Development.html>
12. Levinson, D. (2010). “Equity effects of road pricing: A review.” *Transport Reviews*, 30(1), 33-57.
13. Transport for London, Central London Congestion Charging, Impacts monitoring Sixth Annual Report, July 2008 <http://content.tfl.gov.uk/central-london-congestion-charging-impacts-monitoring-sixth-annual-report.pdf> Accessed on May 8 at 4.33 pm
14. Vivid Economics based on *100 Resilient Cities, Rockefeller Foundation , “The Power of Inclusive Public Engagement in Urban Resilience,” 2019.*
15. Vivid Economics based on (1) *Sustainia, C40 Cities, Realdania, “Cities 100,” 2017;* (2) *C40 Cities, “Mexico City – Paving the way for Climate Action in Mexico City,” 2019.*

## REFERENCES

---

16. Transport for London, Ultra Low Emission Zone, Consultation documents and reports related to the Ultra Low Emission Zone (ULEZ). <https://tfl.gov.uk/corporate/publications-and-reports/ultra-low-emission-zone> accessed on 9 May at 12.32 pm
17. Jacobs, Ultra Low Emission Zone Integrated Impact Assessment, Equality Impact Assessment, October 2014 [https://consultations.tfl.gov.uk/environment/ultra-low-emission-zone/user\\_uploads/ulez-ia\\_eqia\\_final.pdf](https://consultations.tfl.gov.uk/environment/ultra-low-emission-zone/user_uploads/ulez-ia_eqia_final.pdf) accessed on 9 May at 12.32 pm
18. Stockholm Congestion Charge Trial website, <http://www.stockholmsforsoket.se/templates/page.aspx?id=183> accessed on 9 May at 3.40 pm
19. Transek, Equity effects of the Stockholm trial, 2006:36 <http://www.stockholmsforsoket.se/upload/Sammanfattningar/English/Equity%20Effects%20of%20the%20Stockholm%20Trial.pdf> accessed on 9 May at 3.40 pm
20. Mairie de Paris, Ville de Paris, Émission “Sustainable” inaugurale, Novembre 2017 <https://api-site-cdn.paris.fr/images/96124> and Mairie de Paris, City of Paris Inaugural Sustainability Bond, November 2017 <https://cdn.paris.fr/paris/2019/07/24/d0aa8ce1dcb89fe994d3106e2c049b4c.pdf> accessed on 9 May at 4.57 pm
21. Vivid Economics based on *SF County Transportation Authority, “Mobility, access, and pricing study case studies,” 2010; C40 Cities, “Equitable Impact -Guidance Module Congestion Pricing,” 2019.*
22. Abigail Friendly, 2017, Land Value Capture and Social Benefits: Toronto and São Paulo Compared. IMFG Papers on Municipal Finance and Governance. No 33. Institute on Municipal Finance & Governance, Munk School of Global Affairs and University of Toronto
23. *Oscar Borrero Ochoa, 2011, Betterment Levy in Colombia, Relevance, Procedures, and Social Acceptability,* <https://www.lincolnst.edu/publications/articles/betterment-levy-colombia> accessed on 10 May at 3.45 pm
24. Vivid Economics based on (1) *Sustainia, C40 Cities, Realdania, “Cities 100,” 2017;* (2) *C40 Cities, “Mexico City – Paving the way for Climate Action in Mexico City,” 2019.*
25. *Created using (1) Seattle Department of Transportation, May 2019, Phase 1 Summary Report, Seattle’s Congestion Pricing study and (2) U. S. Department of Transportation, Federal Highway Administration, 2013, Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts of Road Pricing* <https://ops.fhwa.dot.gov/publications/fhwahop13033/index.htm> Accessed on May 6 at 1 pm
26. *Seattle Department of Transportation, May 2019, Phase 1 Summary Report, Seattle’s Congestion Pricing study*
27. Regional Plan Association, CONGESTION PRICING IN NYC: Getting it right. September 2019 available at [http://webcache.googleusercontent.com/search?q=cache:yTBSBKtqJd4J:library.rpa.org/pdf/RPA-CongestionPricingNYC\\_GettingItRight.pdf+%cd=11&hl=en&ct=clnk&gl=uk&client=safari](http://webcache.googleusercontent.com/search?q=cache:yTBSBKtqJd4J:library.rpa.org/pdf/RPA-CongestionPricingNYC_GettingItRight.pdf+%cd=11&hl=en&ct=clnk&gl=uk&client=safari) Accessed on May 16 at 4.42 pm

## REFERENCES

---

28. Network Public Affairs, LLC, May 2009, Low-Income Impact Assessment Methodology Memorandum, Los Angeles Congestion Reduction Demonstration Project, Prepared for Los Angeles County Metropolitan Transportation Authority
29. U. S. Department of Transportation, Federal Highway Administration, 2013, Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts of Road Pricing <https://ops.fhwa.dot.gov/publications/fhwahop13033/index.htm> Accessed on May 6 at 1 pm
30. Based on 11
31. The City of Portland, Chapter 17.15 Transportation System Development Charge, [https://www.portlandoregon.gov/citycode/28848#cid\\_742968](https://www.portlandoregon.gov/citycode/28848#cid_742968) Accessed on June 1 at 10.10 am
32. City of Portland Bureau of Transportation, Administrative Procedures for System Development Charges for Transportation, October 16, 1997 REVISED MARCH 25, 2009, <https://www.portlandoregon.gov/citycode/article/180518> Accessed on June 1 at 10.10 am
33. Shishir Mathur and Adam Smith, A decision-support framework for using value capture to fund public transit: Lessons from project-specific analyses, May 2012 REPORT 11-14, Mineta Transportation Institute

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07.

# APPENDIX

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## LIMITATIONS OF THIS RESOURCE

This toolkit is intended to draw out the equity and inclusion considerations that either eliminate the financing or funding option or need to be addressed through appropriate measures in the use of that option. It does not provide a universally applicable verdict for the mechanisms' impact on equity and inclusion. This is because identifying the real-world equity and inclusion impacts of a mechanism depends on:

- **Context** i.e. where the mechanism is implemented. Many city specific factors play a role in the outcomes, for example
  - The implications of congestion pricing can vary between two cities depending on the presence, cost, safety, reliability and convenience of alternatives to driving
  - Different groups may need to be considered in different cities from an equity and inclusion perspective
- **The type of analysis** being conducted i.e. whether the analysis is focused on
  - relative impact i.e. does it compare vulnerable groups with non-vulnerable ones? Or does it compare the impact before and after the implementation of the financing/funding option
  - absolute impacts i.e. does it focus on the actual change experienced by individuals and groups?
- **Criteria** used for evaluating equity i.e.
  - access and availability
  - prosperity and affordability
  - spatial inclusion amongst others<sup>6</sup>

- The **dimensions** along which equity is measured, for example <sup>12, 29</sup>
  - horizontally - where individuals within the same group or class (e.g., income, gender, ability, race) are treated equally
  - vertically – where the distribution of impacts (costs, benefits and burdens) across social groups is based in ability and/or need and therefore encompasses issues of affordability and individual’s ability to pay for access.
  - spatially or territorially (i.e. across geography)
  - market equity - where benefits are proportional to the price paid
  - social equity - where benefits are proportional to need
  - cost based - where those who contribute to a social cost pay for doing so
- **Perception** of the merits of different distributional impacts and goals i.e. what is a superior distributional outcome to one may be viewed differently by others, for example:
  - Some may consider redistributing revenues to projects such as social housing, health care or education for low income groups as better outcomes than (i) investment in and around areas where a fee is levied, or (ii) discounts and exemptions to mitigate equity concerns(e.g. because such discounts and exemptions may undermine efficiency of the funding mechanism or reduce incentives to change behaviour).

These factors mean that this resource can not capture all complexities encountered when developing a project in a city.

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