A city skyline with several tall buildings, some of which are covered in green foliage. The sky is dark and cloudy, with a hint of light on the horizon. The overall scene suggests a focus on sustainable urban development.

Subnational governments'  
financial challenges and  
opportunities, and the  
potential for natural  
accounting at the  
local level

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January 6, 2023

MAURICIO RODAS, FORMER MAYOR OF QUITO



**1800**

**Only 3% percent of the population lived in cities**



**2022**

**55% of the world's population lives in urban areas**



**2050**

**It is projected that it will reach 68%**



**More than 80% of global GDP is generated in cities**



**Cities are where 70% of the world's CO2 emissions take place**

# Facts



Countries would not be able to meet their NDCs and the Paris Agreement without an effective role from cities in tackling climate change.

About 75% of the urban infrastructure that needs to be in place by 2050 does not exist today.

It will cost between 4.5 and 5.4 trillion per year to build low-emission and climate-resilient infrastructure in cities

# International Financial Architecture

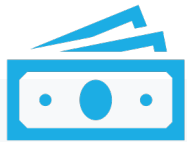
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Cities confront an international financial system that was designed under a **Bretton Woods**' nation-states-focused system, providing little financial access to subnational governments.

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It is critical to foster bold and disruptive reforms to the current financial architecture to make it fit for purpose to the challenges of a mostly-urbanized world.

# Cities Financial Challenges



## **No budget provision for Emergency Situations**

- Limited local government revenues and intergovernmental grants
- Inadequate Financial Autonomy
- Unsustainable fiscal system



## **Inaccessibility to international finance for cities**

- Some cities are banned from international borrowing
- Dependency on sovereign national guarantees
- Low municipal credit-worthiness
- Lack of Institutional capacity (project preparation capacity and management)



## **Limited engagement with the Private Sector**

- Inadequate regulatory and legal framework for public private partnerships
- Insufficient profit margin
- Limited flexibility in procurement to support innovation

# Cities Financial Challenges

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- According to the World Bank, [less than 20% of the largest 500 cities](#) in developing countries are deemed creditworthy, severely constricting their capacity to finance investments in public infrastructure.
- This reality only accentuates the problem, as it is foreseen that it will be in:
  - [Medium and small-size cities in the global south](#) where most of the future urbanization expansion will take place.
  - These cities have even more limited resources and capabilities for a climate-friendly development.

# Natural Capital Accounting in Cities

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Natural capital accounting is a tool that can help subnational governments make better informed investments by providing a **consistent and widely used framework** for including natural assets in their decision making.





# Case Studies London

Vivid Economics estimated that for every £1 spent on maintaining the parks, £27 of benefits are generated.

- London has more than 47% green space (parks, gardens, and woodlands) and 2.5% blue space (ponds, canals, rivers and lakes). Most of these spaces are owned

or managed by the London boroughs, and other public agencies (such as The Royal Parks and Lea Valley Regional Park Authority) or environmental organizations.

- With constraints on public funding, these organizations are struggling to invest in and maintain these public spaces.
- London's public parks have a gross asset value in excess of £91 billion.

VARIABLE	PUBLIC SERVICES (£bn)	RESIDENTS (£bn)	BUSINESSES (£bn)	TOTAL (£bn)	SHARE %
Recreation		17		17	19
Mental health	1.4	3.4	2	6.8	7
Physical health	2.1	5.5	3.1	10.7	12
Residential property		55.9		55.9	61
Carbon (soil)				0.2	0
Carbon (trees)				0.1	0
Temperature		0.6		0.6	1
Gross asset value	3.5	82.4	5.1	91.3	100
	4%	90%	6%	100%	

The Natural Capital Account for London's Public Green Spaces is a significant contribution to the work necessary to ensure that NCA is applicable in an **urban context** and can be applied effectively to urban green infrastructure.

Note: The values are shown as present values evaluated over a period of 30 years, discounting at a rate of 3.5% per year.

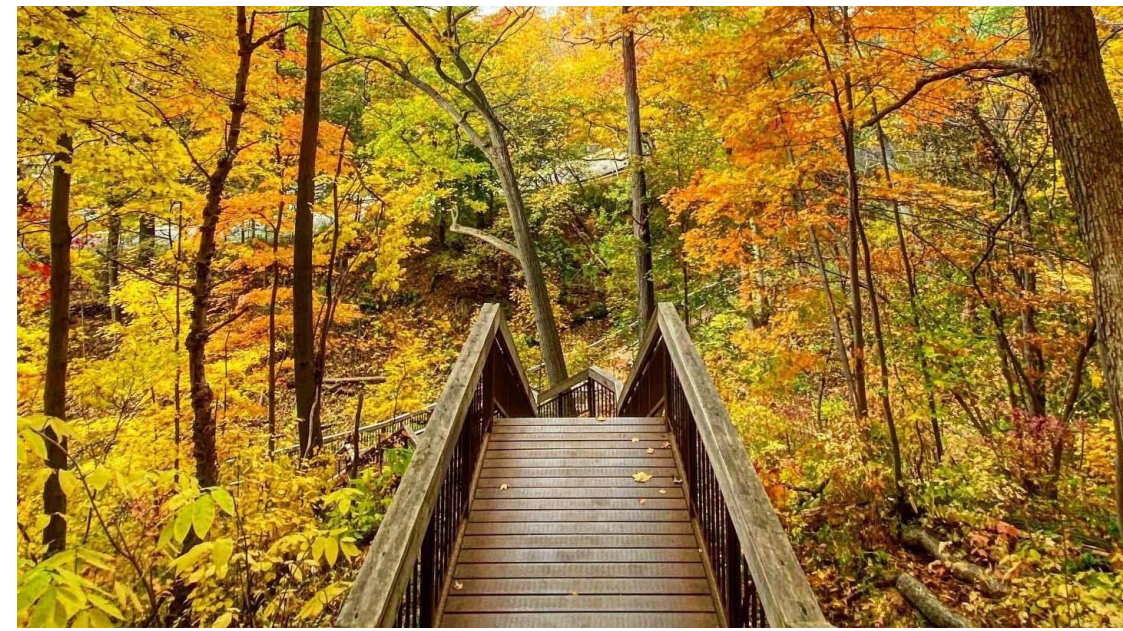
Source: Vivid Economics



# Case Studies

## City of Toronto (Ravines)

In 2018, the City of Toronto assessed and monetized benefit estimates of 8 ecosystem services provided by natural capital in the ravine system:



1. Recreation
  2. Physical health
  3. Mental health;
  4. Gas regulation (e.g. air quality)
  5. Carbon sequestration
  6. Food provision
  7. Aesthetic appreciation
  8. Habitat and refugia.
- Based on the monetized benefits, the total annual value of the ravine system's ecosystem services is estimated to be \$822 million

These results were incorporated in the City of Toronto's municipal asset management process, they created an asset inventory of the ravine system and applied the same natural capital accounting framework to urban forestry assets throughout the city.

# Natural Capital Accounting in Cities **Challenges**

## Paradigm Shift:

- When we think about "Natural Capital" we rarely picture an urban area in our mind.
- Nature has often been associated only as a rural feature, when in fact urban areas are home to an amazing myriad of ecosystems and natural wealth.

## Know How:

- Cities lack the capacity to use natural capital assessments in their development plans to enable ongoing monitoring and assessment of natural capital stocks to maintain and restore them.
- Poorly managed natural capital therefore becomes not only an ecological liability, but a social and economic liability.

# Natural Capital Accounting in Cities Challenges

## Measurement:

- Cities lack the capacity to measure flows—typically called ‘ecosystem services’—as well as the underlying ‘natural capital’ stocks giving rise to these outputs.
- Many national governments do not possess natural capital accounts or any sort of asset registry of the amount of natural capital stocks they possess, and cities less so.

## Data:

- Not enough complete urban data available on natural capital, their changes over time, and the exchange of goods and services between the environment and the economy.
- Lack of available data constraints local governments face in incorporating natural capital accounting into policy-making decisions.

# Natural Capital Accounting in Cities Opportunities

By creating formal NCA and ecosystem goods and service accounts, subnational governments and businesses could better understand the current situation, innovate, conserve, and plan for environmental shocks.

Natural capital accounting presents opportunities for collaboration between national and subnational government policy-makers, social scientists, economists and accountants to demonstrate the value of enhancing green spaces and biodiversity throughout our cities.

On the policy side, NCA can demonstrate that economic benefits from green spaces are not equally distributed and therefore, future investments can be targeted spatially to correct this inequality.

# Green Cities Development Bank-GCDB

GCDB is a disruptive idea still in the making

GCDB will unlock new **financial instruments and funding mechanisms** currently unavailable through the existing international financial architecture.

Promoted by C40 and other organizations since 2019.

It aims to combine key elements of development banks with the proven green bank model, focusing on cities.

It would lend directly to cities and subnational governments enabling the rapid development of sustainable urban infrastructure projects.

# Green Cities Development Bank-GCDB

NCA can become a main tool for cities when trying to access finance:

Finance is heavily dependent on quantitative information.

Whether it is financing green or greening finance, it is crucial to quantify the impacts on nature and relate those to monetary investments.

Providing a value to nature helps investors and investees to fully consider a project.

Data also becomes a communication tool between the parties involved in a deal.