



C4O  
CITIES

حكومة دبي  
GOVERNMENT OF DUBAI

# GREEN FINANCE IN C4O CITIES

BENCHMARKING ASSESSMENT

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# FOREWORD

**His Excellency Abdulla Al Basti, Secretary General (SG) of The Executive Council of Dubai and C40 Vice Chair for Green Finance**

Finance is increasingly gaining focus as a critical enabler for climate action worldwide. Both mitigation and adaptation require investment in the short term to obtain long-term gains at the local and global scale. Through our work with the C40 Network of cities on the topic of green finance, there are several takeaways that have been identified:

**First**, the availability of green finance has been increasing steadily over the past decade though not at the scale required to meet the climate challenge.

**Second**, there is a need to mainstream climate activities into city-budgeting and operations to obtain the maximum impact from climate actions. This requires improving climate literacy and collaboration amongst government departments.

**Third**, addressing cities' barriers to accessing climate finance is essential to unlock the full potential of climate action in cities.

**Fourth**, in spite of increasing climate finance, there is still limited finance being allocated to adaptation leaving vulnerable populations unprotected.



Identifying the opportunities and challenges is the first step in delivering meaningful and impactful climate action. And we hope that the findings shared here will help cities and donors adjust their supporting policies and tools accordingly to reap the full potential of climate action in cities.

**H.E. Abdulla Al Basti**  
**Secretary General**  
**The Executive Council of Dubai**

# ABOUT THIS RESOURCE

Financing is frequently cited as **one of the most prohibitive barriers** municipal governments face when trying to implement climate action. For this resource, C40 Cities collaborated with the Government of Dubai to explore green finance trends and challenges experienced across the C40 network with the aim of **breaking down the complex issue of access to finance**.

In the first section, a general overview of the current landscape is given, looking at how cities are currently financing and progressing projects. After, the main challenges identified through the research exercise will be highlighted and briefly analysed.

Information has been sourced from leading research institutions and direct consultation with cities through CDP and C40 surveying.



# 1. OVERVIEW

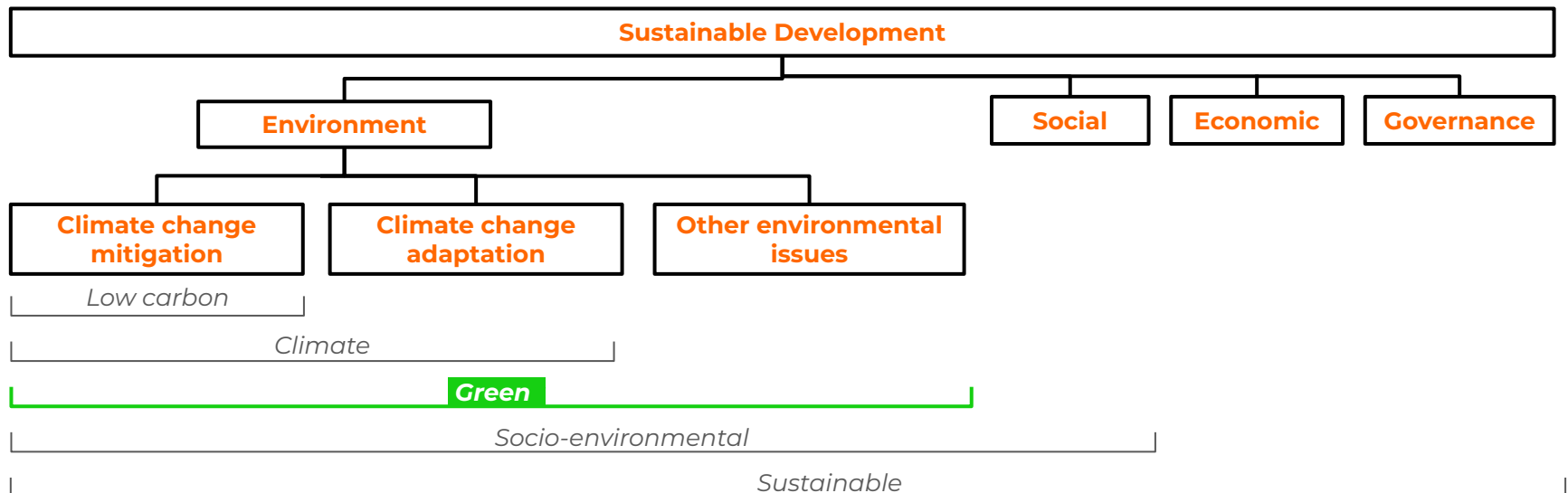
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# GREEN FINANCE: A DEFINITION

Defining what is meant by green finance is a core part of meaningfully expanding the sector. Stakeholders can often lack a common agreement on what constitutes a 'green project', which is needed to help build stronger environmental standards and set parameters in which a financial instrument or service must operate.

The World Economic Forum defines green finances as: *"Any structured financial activity—a product or service—that's been **created to ensure a better environmental outcome**. It includes an array of loans, debt mechanisms and investments that are used to encourage the development of green projects or minimise the impact on the climate of more regular projects. Or a combination of both."*<sup>1</sup>

The G20 Green Finance Study Group further adds that *"green finance also involves efforts to **internalize environmental externalities and adjust risk perceptions** in order to boost environmentally friendly investments and reduce environmentally harmful ones."*<sup>2</sup>

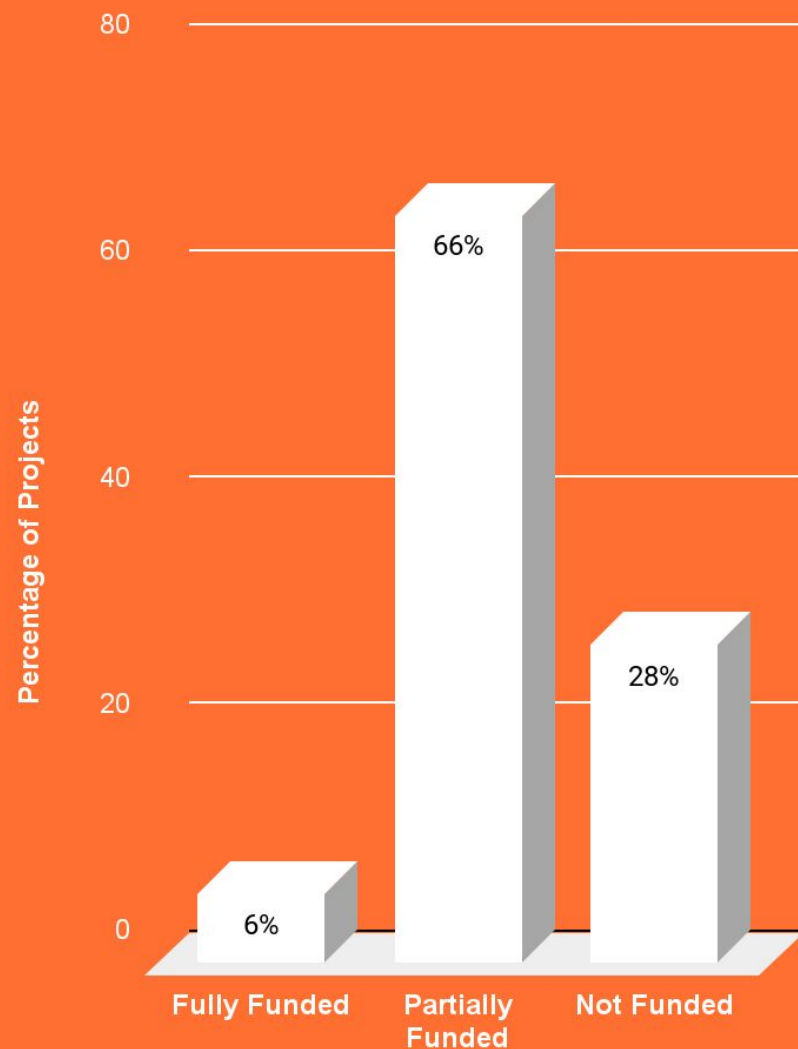


# STATUS OF PROJECT FINANCING IN C40 CITIES

- **6% of city projects fully funded**
- **66% partially funded**
- **28% with no funding secured**

In a survey of 53 C40 cities conducted by CDP, cities reported only a small percentage (6%) of city climate projects were fully funded, with the majority partially funded and seeking additional sources of capital.

The lack of funding was most severe in Latin America, Africa and the Middle East where the proportion of completely unfunded projects accounted for 67%, 44%, and 43% respectively.



# PRIMARY SOURCES OF FUNDING & FINANCE

**Most C40 cities rely on own source revenue or nation government transfers to fund or finance climate actions.**

In the survey of C40 cities developed for this resource, 86% of respondents reported that their own city funds (e.g. tax revenues) were one of their most important sources\* of finance for climate action. Similarly 64% reported that national governments were a key source of finance. This may be a reflection of the challenges city face in seeking capital through private sources or streams of development funding (these are discussed later in section 3).

These finding are consistent with data sourced from CDP (*table 1.*) in which cities (across all regions where data was available) reported that the majority of their climate risk reduction actions are currently funded from local funds. For most regions, national or subnational transfers were the second most frequent funding source.

	<b>Local</b>	<b>(Sub) National</b>	<b>Int (ODA)</b>	<b>Climate Finance (carbon credits)</b>	<b>Public- Private partner ship</b>	<b>Other</b>
<i>Africa</i>	<b>36%</b>	24%	28%	0%	4%	8%
<i>East Asia</i>	<b>97%</b>	0%	0%	0%	0%	3%
<i>Europe</i>	<b>67%</b>	16%	6%	0%	4%	7%
<i>Latin America</i>	<b>88%</b>	3%	3%	0%	5%	1%
<i>Middle East</i>	<b>82%</b>	0	12%	0%	6%	0%
<i>North America</i>	<b>68%</b>	17%	0%	0%	4%	11%
<i>South and West Asia</i>	<b>N/A**</b>					
<i>Southeast Asia and Oceania</i>	<b>36%</b>	24%	28%	0%	4%	8%
<i>Total</i>	<b>68%</b>	<b>12%</b>	<b>11%</b>	<b>0%</b>	<b>4%</b>	<b>5%</b>

*Table 1. Percentage responses, by region, from CDP city survey on 'funding source of the main actions to reduce the risk to, and vulnerability of, the city's infrastructure, services, citizens, and businesses from climate change'*

# ADAPTATION AND RESILIENCE

## Accessing finance for adaptation and resilience projects is especially challenging for cities

Cities globally are already facing the dire impacts of climate change with the poorest and most vulnerable citizens hit the hardest.

Currently, only 10% of climate finance directed towards cities covers adaptation and resilience.<sup>3</sup> When C40 asked member cities which types of projects are prioritised for funding, only **16% said adaptation/resilience**, 38% said mitigation and 46% said both.

In addition to increasing the flows of finance dedicated to adaptation, urgent attention will need to be given to developing business models and financial instruments that work for adaptation projects, which often lack clear conventional repayment mechanisms.



# 2. ENABLERS AND AREAS TO WATCH

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# THE ROLE OF GOVERNANCE

Good governance is essential to driving market transition and building citizen confidence in climate action, especially where projects are considered high risk, require large upfront investment, or involve public behavioural change. Governance measures that promote a stronger green finance ecosystem include:

- **Supporting a consistent definition and standard for 'green'** to discourage greenwashing and create frameworks for sustainable markets.
- **Ensuring transparent reporting and governance** for climate projects and green finance sources or allocation.
- **Adopting credible verification through third party verifiers** for instruments like bonds, to build investor confidence.



# MAINSTREAMING CLIMATE IN MUNICIPAL FINANCE

In addition to the general principles of good governance, cities can play a significant role in financial governance through mainstreaming of climate in municipal finances.<sup>5</sup>

Climate mainstreaming uses reforms to internal policy or processes to embed climate considerations into everyday decisions and activities. In the context of finance, this means embedding climate mitigation and resilience criteria into how external investment is sought, how allocation of own-source revenues is prioritised and disbursed, and financial governance processes. Climate mainstreaming can take different forms, depending on the context of the city (see examples on the right).

Successful mainstreaming requires political commitment, strong cross-departmental relationships and climate literacy across multiple departments, especially financial departments.

## REAL WORLD EXAMPLES

### Oslo, Norway

Oslo has pioneered a climate budget that operationalises their climate strategy through integrating climate considerations into the ordinary budget and enables the city to match their financial expenditure with ambitious greenhouse gas reduction plans. The city's Department of Finance manages the climate budget, and the City Council verifies that spending plans realistically can meet the emissions reductions targets.

### Tshwane, South Africa

Tshwane uses a digital capital planning system to analyse, prioritise and monitor the city's capital projects. The planning platform has evolved over time to include climate considerations serving as an advocacy tool for the City's climate goals and vulnerabilities within its capital investment plan. The city is able to track and report on how their spending is aligned with climate responsiveness at the close of each budgetary cycle.

***See page 23 for links to webinars featuring each of the above case studies.***

# PRIVATE SECTOR ENGAGEMENT & PARTNERSHIPS

Residents, businesses and financial institutions represent a major percentage of investments that take place within a city's jurisdiction.

As such, engaging, steering and collaborating with the private sector will be vital to meeting climate goals. This could take the form of:

- Reforming **public tender systems** to include environment and social clauses.
- Developing **concessions and incentives** to drive growth of green business practices and investments.
- Supporting smaller businesses to reduce their emissions by providing **programmes or financial support to invest in green upgrades**, such as energy efficiency improvements.



## Dubai Partnering for an Energy Transition

Dubai has adopted a successful model of public private partnership (PPP) to finance renewable energy projects. The city introduced legislation allowing the private sector to invest in and own utility plants through the establishment of PPPs in 2013. This model has allowed Dubai to deliver over 1,000 GW out of the total planned 5,000 GW as part of its Mohammed bin Rashid Al Maktoum Solar Park, worth 50 billion AED of investment. The different phases of the project have achieved four world records for the lowest recorded cost of renewable energy, thereby contributing to the increased competitiveness of solar energy at a global scale.

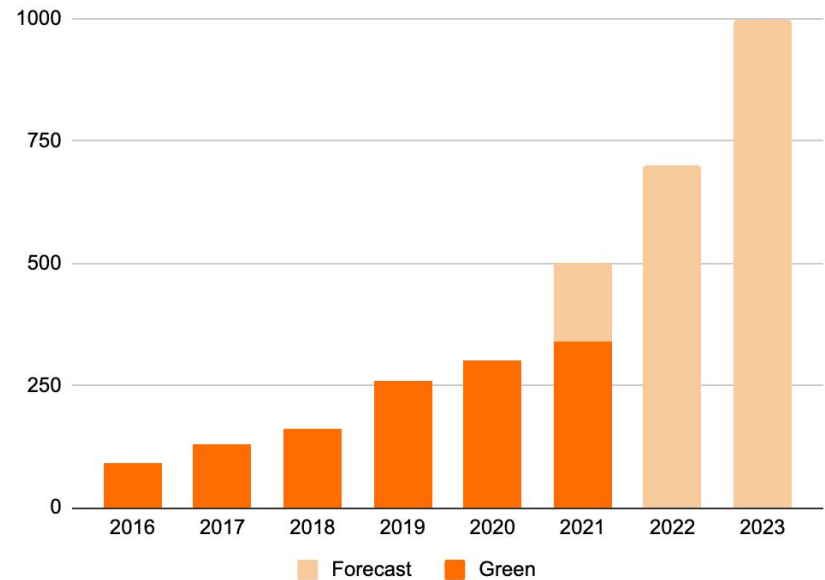
# GREEN BONDS

According to the Climate Bonds Initiative (CBI), issuance of Green, Social and Sustainability debt increased in all regions in 2020, despite the economic impact of the COVID-19 pandemic, although growth of green bonds did slow outside of developed markets.<sup>6</sup> Cumulative green labelled debt issuance stood at USD 1.2 trillion at the end of Q3 2021<sup>7</sup>.

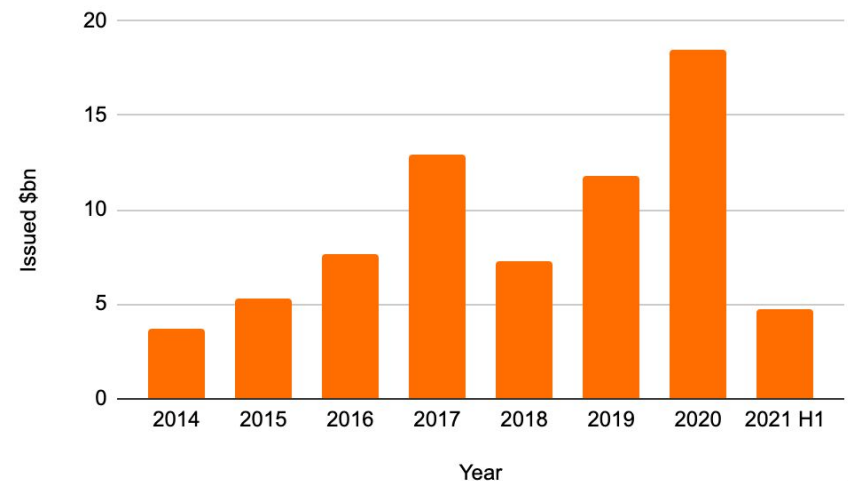
It is clear that the green bond market will continue to grow, with market analysts now confident that an annual issuance of a trillion US dollars in 2023 is achievable.<sup>7</sup> This represents a significant financing opportunity for cities if they can overcome challenges including:

- insufficient creditworthiness (see page 14)
- lack of frameworks for projects;
- verification and independent review; and,
- low capacity to structure and report on the bond.

**CBI Predict 'annual trillion in green bonds within reach by 2023'\***



**Global Local Government Green Bonds Issuance \$bn (USD)\***



\* Graphs created from Climate Bonds Initiative data analysis<sup>6</sup>



# 3. MAIN CHALLENGES

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# CREDITWORTHINESS

**Inability to obtain an investment-grade credit rating remains a barrier to implementing climate action for cities.**

Many C40 cities are either not credit-rated or do not have an investment grade credit rating. This has been made worse during the COVID-19 pandemic during which a number of cities had their ratings downgraded. This limits a city's ability to attract the vital external investment needed for a large number of climate projects.



**36%** of cities surveyed listed creditworthiness as a top barrier\* to climate action.

This increased to **80%** when only considering cities in ODA-eligible countries.

Global data\*\* from CDP also highlights a limited number of cities with credit ratings:

Over **50%** of C40 cities surveyed report not having a national credit rating.

Over **40%** report not having an international credit rating.

\*In the top four barriers.

\*\* Excluding South & West Asia due to lack of data

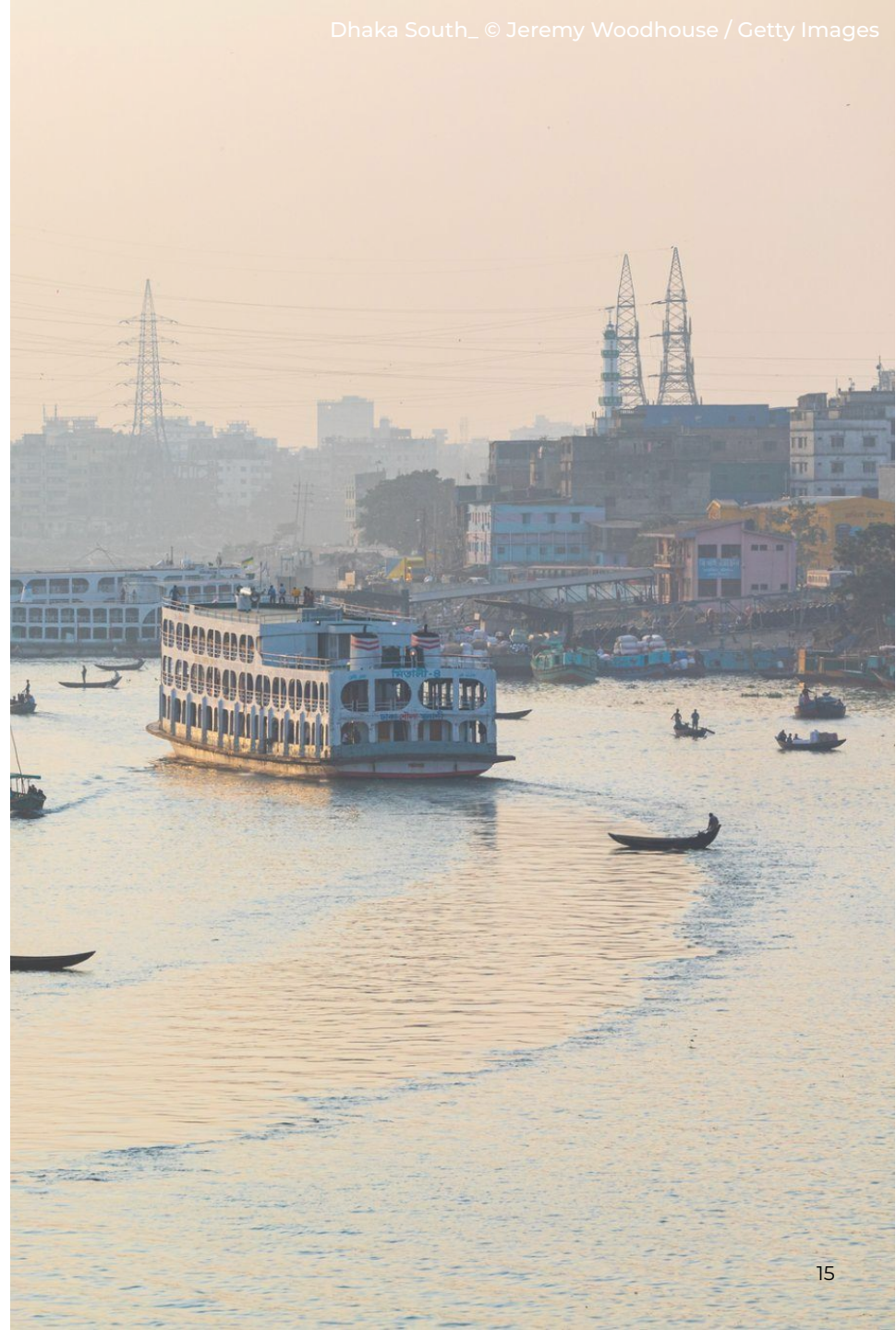
# CAPACITY TO DEVELOP PROJECTS

**Capacity to develop projects is a major challenge for 50% of C40 cities.**

50% of cities surveyed by C40 listed insufficient internal capacity to develop projects to a investment-ready stage as a main barrier\* to implementing climate action. When considering only **cities in ODA-eligible countries, that proportion increases to 100%.**

This reflects a lack of both financial and technical resources. Early-stage project preparation represents 3-5% of total project investment costs (increasing to 10% in emerging or developing markets) - an estimated USD 300 billion annually if sustainable investments targets are to be met.<sup>8</sup> Costs aside, projects outlined in a city's climate action plan often require new policies, technologies and/or business models that the city may not have sufficient internal expertise to develop.

*\* in the top 4 most prohibitive*



# MULTI-STAKEHOLDER ENGAGEMENT

As seen on page 6, cities still primarily rely on public sources of finance for climate action, despite increasing climate commitments and activity from the private sector (galvanised by initiatives such as [We Mean Business](#)). This suggests that cities still struggle to access private capital or utilise public-private financing models.

In addition to engaging the private sector, cities have an obligation to work meaningfully with other stakeholders including unions, social and/or environmental justice groups and indigenous peoples. City resources are required to build and maintain trust with these groups, as well as balance differing positions on climate policies or programmes, all of which can take time and impact the financing approach.



# 4. LOOKING FORWARD

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# TYPES OF SUPPORT REQUESTED BY CITIES

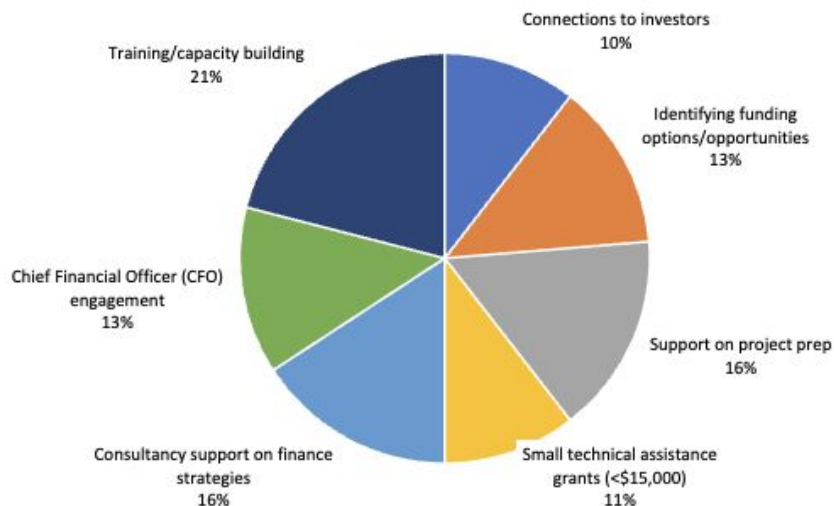
**Cities require a range of support mechanisms, reflecting the context, range and complexity of issues faced.**

The resources required by cities vary according to a range of factors including stage of project development, internal capacity/knowledge and the extent of power devolved to local authorities from national governments.

This is reflected in survey data from C40 (see below) in which member cities favoured training and capacity building support, but only by a small margin, with most support types receiving a roughly equal split of the vote.



What type of support from C40 would be most useful for your city?



# WHAT DOES COP26 MEAN FOR CITIES?

COP26 was a mayor date in the 2021 diary for climate change. The outcome of the event was described by United Nations Secretary General António Guterres as ‘an important step’ but ‘not enough’<sup>9</sup>.

Whilst the concrete progress of nation states may have disappointed in many areas, cities played a bigger role than in any previous COP. The number of cities acting for a 1.5°C future has significantly increased and local governments represented at COP showed a more unified and ambitious position that their national counterparts.

It is hoped that increasing recognition of the important role cities are playing to accelerate climate action will be met with allocation of more resources tailored to the context of local governments, especially on finance (e.g. direct borrowing streams for cities).

*‘As the dust settles on COP26 it is clearer than ever that the climate crisis is not going to be averted by inter-governmental negotiation. That’s not to ignore the momentum generated by COP26, or the incremental progress made in Glasgow. But the commitments on the table from national governments when the gavel came down fell well short of locking in action to halve global emissions this decade, and that was the ultimate indicator of success or failure. As a result there is an even more urgent need for cities and other non-state actors to lead immediate science-based climate action, and increase the impetus on national leaders.’*

**Mark Watts, Executive Director, C40 Cities**

*For more information on C40’s analysis of COP26, please contact [citydiplomacy@c40.org](mailto:citydiplomacy@c40.org)*

# SUMMARY

Global recognition of cities as drivers for bold, innovative and just climate action is rightfully growing. At the same time, the green finance ecosystem is expanding to cover new financial flows, mechanisms and actors. However cities still face numerous challenges in financing sustainable infrastructure and projects, with adaptation remaining notably underserved.

For the continued growth of the green finance sector to meaningfully serve all communities, it must serve cities.

Improving financial health is a priority for most, if not all, cities, and other stakeholders should align themselves with these efforts. In parallel, poor financial health, or other restrictions on sub-national borrowing, can not continue to so drastically limit action in the most climate-vulnerable and under-resourced cities, as it currently does, if the scale and timeline of investment outlined by the IPCC is to be met.

Cities are also taking steps to mainstream climate in their internal budgetary processes, with Oslo's Climate Budget providing a 'gold standard' template for others to follow.

However, the ability of cities to attract external finance, or better align their internal budget allocation with climate goals, will need to be complimented with adequate support for project preparation. The growing number of project preparation facilities (for example, the City Climate Finance Gap Fund, or the C40 Cities Finance Facility) is a promising sign, but there is still more that development finance institutions can do to make upstream project preparation support available to cities, from allowing for more direct support to municipal governments, to lightening application and reporting burdens.

By rallying together, cities, national governments, businesses and other stakeholders can leverage the growing interest in green finance to deliver an equitable climate safe future for all.

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## Other sources that informed this resource:

Cities Climate Finance Leadership Alliance (CCFLA) (2021). *The State of Cities Climate Finance 2021*. Retrieved from <https://www.climatepolicyinitiative.org/publication/the-state-of-cities-climate-finance/>

# WEBINARS

The webinars referenced in this resource can be found at the following links:

- **Optimizing Green Finance in Cities- Challenges and Opportunities Day 1 - Tshwane Case Study**  
<https://vimeo.com/manage/videos/632980454/5606405c77>
- **Optimizing Green Finance in Cities- Challenges and Opportunities Day 2 - Paris Case Study**  
<https://vimeo.com/manage/videos/632831166/f88d5c6d1c/privacy>
- **Optimizing Green Finance in Cities- Challenges and Opportunities Day 3 - Montreal Case Study**  
<https://vimeo.com/manage/videos/636374893/52053dd823/privacy>

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