IMPACT REPORT

April 2021 - October 2024

C40 CITIES FINANCE FACILITY

Introduction

The C40 Cities Finance Facility (CFF) works with cities to develop infrastructure projects that have a tangible impact on the lives of their residents. By providing cities with the support and expertise they need and linking these projects to finance, **CFF turns ideas into infrastructure that makes a real difference to people's lives.**

This work is extremely urgent. 2024 was the hottest year on record, with rising temperatures and more extreme weather events leading to destruction and displacement across the world. Cities across the Global South are already facing the impacts of climate breakdown, yet they often lack the resources to respond. CFF exists to bridge that gap and ensure that ambitious cities can access the expertise and financing they need to address climate change now.

Since its launch at COP21 in 2015, CFF has partnered with 30 cities across Africa, Asia, and Latin America, supporting 38 transformative infrastructure projects.

These projects have included —

- **electric buses,**
- **solar farms,**
- **energy efficiency improvements,**
- **sustainable waste systems and**
- **river restorations**

— all aiming to reduce greenhouse gas emissions and strengthen resilience to the effects of climate change.

In only 10 years, CFF and its partner cities are projected to mobilise US$1.25bn in climate finance for their projects. Of these, more than three-quarters have been linked to finance and two-thirds are already operational, for a total of US$725 million in climate finance already spent on real projects with real impact.

CFF supports climate action projects in cities with the highest ambition and potential. It offers independent support based on international best practices around how to prepare and finance infrastructure projects. CFF's support ensures environmental and social risks are identified and managed, while aiming to maximise the wider benefits of each project, beyond their climate impacts. This includes green jobs, improved public services, cleaner air, access to green spaces and new economic opportunities.

CFF stands out as a leading initiative in this sector thanks to its focus on:

City ownership: Cities lead the preparation of every project. CFF tailors its support to each project and city, responding to different needs and ensuring solutions are rooted in each city's context.

Inclusive climate action: CFF carefully selects projects with the highest social impact and which are designed with fairness and inclusivity at their core. Cities collaborate with CFF to embed these considerations throughout the preparation process to deliver benefits for all, particularly the most marginalised communities.

Developing skills and knowledge: Through training, exchanges with peers, and on-the-job learning, CFF strengthens cities' ability to prepare, finance and scale up impactful projects in future independently, which will lead to further, transformative impacts in future.

This short report details activities carried out by CFF between March 2021 and November 2024 ("Phase 3", following two previous phases between January 2016 – March 2018 and April 2018 - February 2021).

In this period, CFF supported 18 projects in 16 cities, with funding from the German Federal Ministry for Economic Cooperation and Development (BMZ)[1], the UK Foreign, Commonwealth & Development Office (FCDO)[2], the Agence Française de Développement (AFD) and the United States Agency for International Development (USAID). Jointly implemented by C40 Cities Climate Leadership Group (C40) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, CFF combines global climate leadership with sustainable development expertise.

This report also includes updates from projects and cities previously supported by CFF, showing how these have continued to develop after CFF support ended. Cities continue to be at the forefront of the global movement to confront the climate crisis. CFF is committed to strengthening that leadership even further by supporting them to **develop infrastructure projects with real impact.**

[1] CFF is commissioned as part of the Climate-resilient Infrastructure Investments in Cities (CIVIC) programme, funded by BMZ.

[2] CFF is commissioned as part of the Urban Climate Action Programme (UCAP), funded by FCDO.

C40 Cities Finance Facility (CFF)
10 years of climate action

Projects

2015

Founding of the CFF

2016

2016 – 2018
Bogotá – Medio Milenio cycling paths

Mexico City – Electric buses on Eje 8

2016 – 2021
Durban – Transformative Riverine Management Programme

2017

2017 – 2021
Bangalore – Transitioning to an Electric bus fleet

2018

2018 – 2021
Bogotá – public bike share system

Bucaramanga – Public bike share system

Cali – Public bike share system

Curitiba – "Mais Energia" Solar farm on Caximba landfill

Dakar – Climate resilience in Grand Yoff

Dar es Salaam – Waste management & flood protection

Guadalajara – E-bus corridor connecting underserved areas

Hermosillo – Electrifying the city's bus fleet

2019

Jakarta – E-buses for better air quality

Monterrey – Electric feeder routes for the Metro

Montería – Public bike share system

Quezon City – Solar PV on public schools and hospitals

Quito – Electrifying Trolleybuses and buses

Rio de Janeiro – Solario Carioca solar farm

Tshwane – First combined heat and power plant

2020

Tshwane – Walking & cycling in road upgrades

Impacts

8.98 Mt

CO_2 reduced over 30 years – equal to Barcelona's annual emissions

1.22 million

people directly benefit from improved resilience by 2035

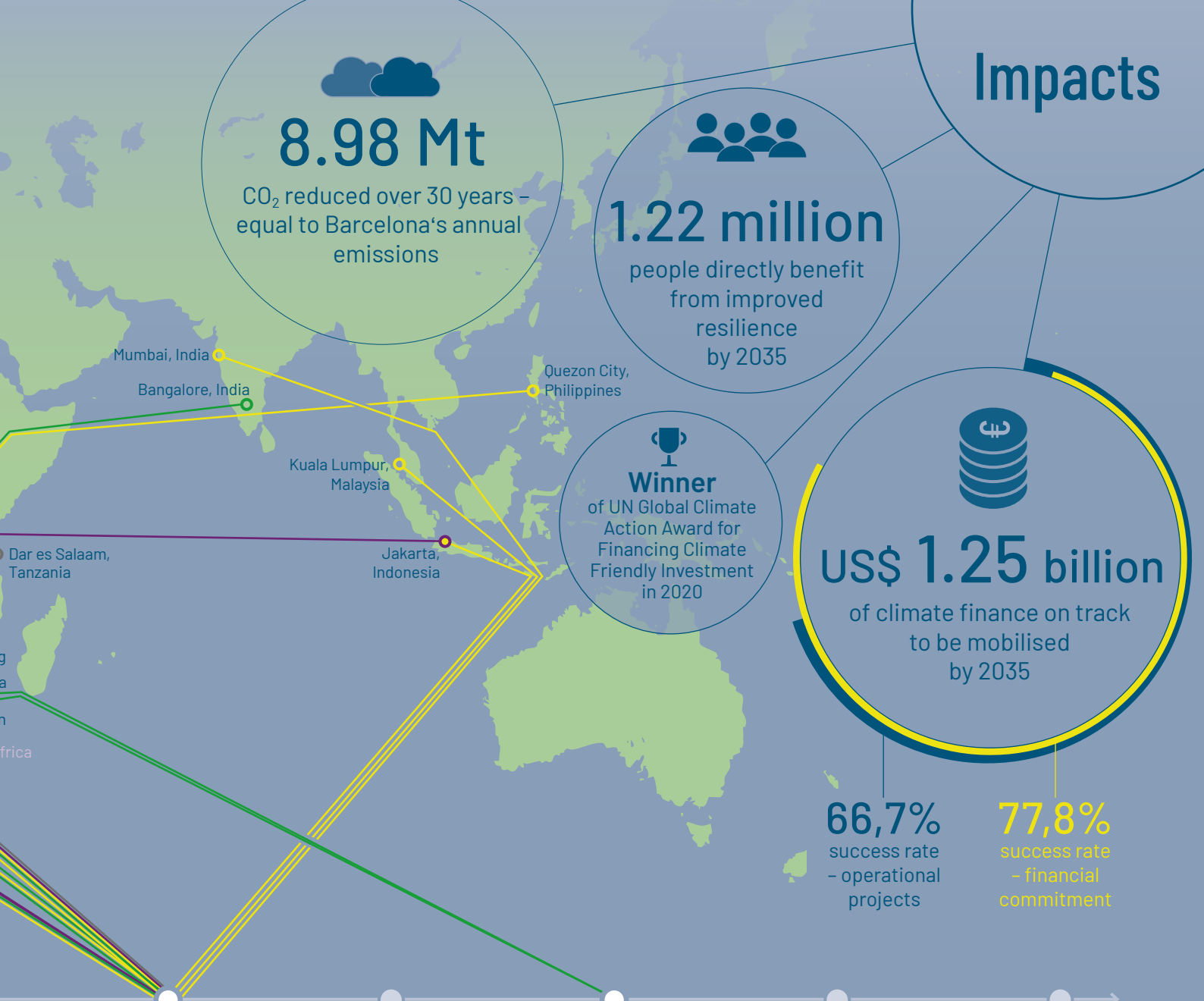
Winner
of UN Global Climate Action Award for Financing Climate Friendly Investment in 2020

US$ 1.25 billion

of climate finance on track to be mobilised by 2035

66,7% success rate – operational projects

77,8% success rate – financial commitment



2021 – 2024

- **Bogotá** – Greener, energy-efficient public buildings
- **Dakar** – Greener, energy-efficient public buildings
- **Jakarta** – Greener public hospitals
- **Kuala Lumpur** – City Hall district cooling upgrade
- **Kuala Lumpur** – Greener, energy-efficient public buildings
- **Lima** – Cycling bridge over Río Rímac
- **Medellín** – Greening Parques del Río Norte
- **Mumbai** – Solar-powered electric bus fleet
- **Rio de Janeiro** – Eco-depot for e-buses
- **Trujillo** – New cycle lanes for greener streets

2021 – 2025

- **Accra** – Community-based waste separation and composting
- **Cape Town** – Nature-based flood protection
- **Cape Town** – Paardevlei solar farm
- **Drakenstein** – Berg River flood mitigation
- **Freetown** – Cable car to the city-center
- **Salvador** – Flood & landslide protection in Vila Mar

2023 – ongoing

- **Johannesburg** – Jukskei River flood protection
- **Mbombela** – Community flood protection

Strong global demand for climate finance – more than 200 applications were received for CFF support

MAP KEY

- Energy & Buildings
- Climate Adaptation
- Mobility
- Waste

Highlights and Impacts

Since its launch in 2015, **CFF has delivered tangible change and impact in dozens of cities across the world.**

In each city, these significant climate impacts go together with wider social, economic, and environmental benefits. In Durban, the restoration of all 7,400kms of rivers and streams in the city could unlock an estimated US$1.6 billion in societal benefits and create over 9,000 jobs. In Medellín, the cost-benefit analysis revealed that every US$1 invested in the project generates US$1.67 in savings through avoided damages and savings from reduced energy use. By enabling cities to make these ambitious infrastructure projects a reality, CFF has helped unlock a greener and more inclusive future - **where climate action goes hand in hand with economic opportunities and social inclusion.**

CFF aims to support cities all the way to financing. This includes the preparation of business models, procurement documents, contract negotiations, or securing follow-on support from another organisation or financial institution. **Financing solutions are tailored for each project, looking at a diverse range of public, private and international sources.** Cities then continue to lead the process, all the way to implementation and operation of each project. This process can take time: CFF's tangible impact is generally realised years after its support ends. But **there is no doubt that these projects are advancing from planning to implementation:** of the projects supported by CFF between 2016 and 2021, more than three-quarters of them (14 out 18) were linked to finance and two-thirds (12 out of 18) are already operational. These investments represent jobs, economic opportunities, better health outcomes, improved air and water quality, creating stronger and more resilient communities.

Over the last few years, CFF has refined the way it collaborates with cities to ensure that CFF-supported projects are benchmarked against international infrastructure standards. Potential environmental and social risks are assessed for all projects and mitigated in accordance with the International Finance Corporation Performance Standards (IFC PS), widely recognised as the industry standard by international financial institutions. In the instance of Mumbai, CFF collaborated with the city to pilot the FAST-Infra Sustainable Infrastructure label to the project – a certification which ensures infrastructure is adaptable to future challenges such as climate change and urbanisation.

Emission reduction: CO2e over 25 years

Total: 8.98 million tons, equivalent to the annual emissions of Barcelona

Phase 3 (2018-2021): 6.4 million tons

People directly benefitted from increased resilience of the impacts of climate change

Total: 1.22 million

Phase 3: 339,131

People directly benefitted from increased access to infrastructure and public services

Total: 6.4 million, of which 1.84 million from marginalised groups

Phase 3: 4.2 million of which 1.23 million from marginalised groups

Job-years in Phase 3: 36,000

From ideas to impact: five city stories of transformation

Behind the numbers, there are stories of transformation. Cities are turning their ambition and ideas into action, and their planning into implementation. Below are five exemplary projects and cities supported by CFF in **Phase 3 (2021-24)**, demonstrating CFF's role in financing sustainable infrastructure and unlocking wider transformation.

These cities applied for support from CFF to address a specific financing challenge, such as navigating new national regulations (e.g., Cape Town), making the case for a city-wide system (e.g., Accra) or for interventions that address climate and social inclusion together (e.g., Salvador). In all instances, CFF has supported each city to scope and define the most appropriate financing solution for the project, based upon their context and interests and often in close consultation with external partners. Some of these projects are already linked to finance: Mumbai has opted for a public private partnership to install and operate the project, while Medellín has chosen to fund the first phase of the project with the city's own resources.

Powering Mumbai's electric bus fleet with solar energy

As one of India's most populous and fast-growing cities, Mumbai is facing the challenge of providing transport for all in a sustainable and integrated way. Without targeted intervention, Mumbai would risk seeing air pollution and greenhouse gas emissions from transport rise rapidly as more of its residents seek economic opportunities and access to services. The city is tackling these issues by combining an ambitious shift to electric mobility with clean solar energy. With CFF support, Mumbai - through a project led by the Brihan Mumbai Electric Supply and Transport (BEST) corporation, the public agency in charge of electricity supply and buses - will install 38MW in solar panels on the rooftops of 27 depots to power Mumbai's fast-growing electric bus fleet. **The renewable energy produced on site will be used to charge 800 electric buses,** saving an estimated US$8 million annually in operational costs.

The project has been prepared with replicability in mind. A prefeasibility study is already underway to expand to a further 59 depots, signaling the city's intention to scale up and drawing interest from peer cities across India. By applying the FAST-Infra Sustainable Infrastructure label to the project, Mumbai has set a global benchmark for green urban infrastructure, showing how cities can rise to the challenges they face and align economic and environmental goals.

A new system of waste separation and composting in Accra

In Accra, waste is a pressing environmental issue, accounting for a third of the city's greenhouse gas emissions. 1 in 7 households burn most of their waste. The need for a comprehensive, city-wide, sustainable waste system in Accra is urgent – and this system must build upon existing informal structures which currently collect a significant percentage of the city's waste. **CFF has supported Accra to develop an integrated waste management model to separate waste at source and treat organic waste.** The potential climate impact of this project is the largest reduction of any CFF-supported project ever. Its social and economic impact could be even greater, in terms of reduced pollution and health hazards, improved working conditions and economic opportunities in the waste sector.

As part of the project, a former landfill site is being transformed into a circular economy hub, complete with a composting facility to reduce dependence on imported fertilisers. **At the heart of the project and the city-wide transition are informal waste workers,** who collect over half of Accra's waste but often operate with limited job security and inadequate equipment. Accra is prioritising their inclusion through awareness campaigns, training and fair compensation, ensuring they are not left behind by the city's ambitious scheme to transform how waste is managed. By embedding inclusivity considerations into infrastructure design, Accra is demonstrating what inclusive climate action looks like in practice.

Paardevlei Solar Farm – Cape Town's first city-owned, large-scale solar farm

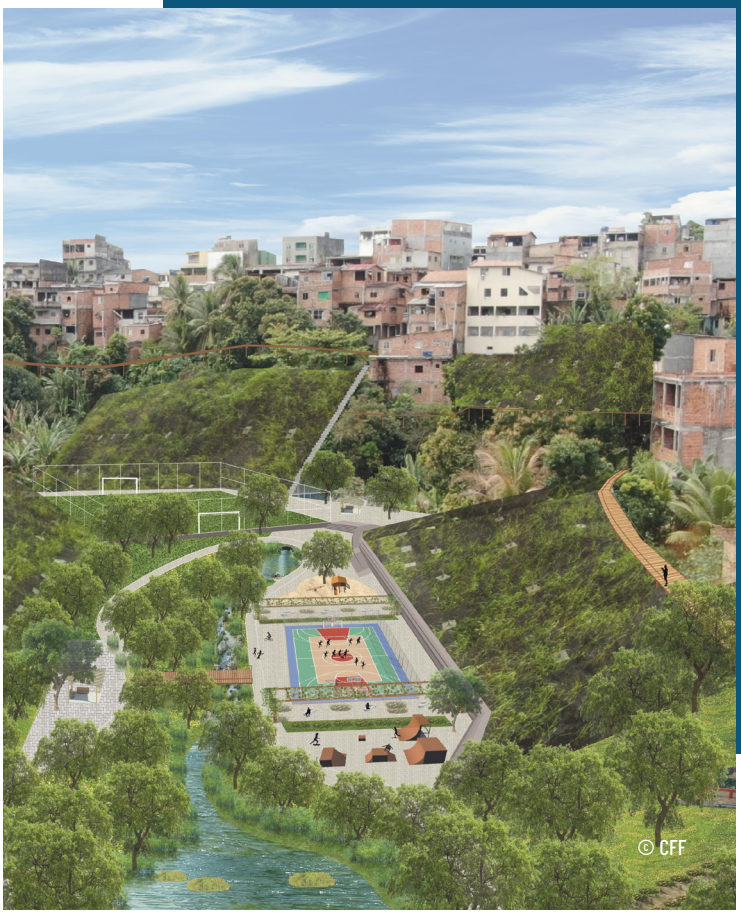
Rolling blackouts (known as "loadshedding") continue to affect residents and businesses across South Africa. These temporary outages are due to insufficient power supply and poor governance of the sector, with significant economic and social consequences. Cape Town is addressing this ongoing issue by prioritising energy security, under new national regulations that allow cities to generate their own electricity. With CFF support, the city is breaking new ground by developing one of the country's first large-scale, city-owned solar farms in Paardevlei, in the south of the city. **At 60MW, it will be the biggest solar farm to be developed by a municipality in South Africa.** It will make the grid more stable, powering essential public services, local businesses and households, while reducing dependence on coal as a source of energy and thus reducing greenhouse gas emissions and air pollution.

The solar farm is a response to load-shedding but it also sets out a **model for a resilient, city-led energy transition in South Africa and beyond.** The project is a flagship initiative in Cape Town's 2050 Energy Strategy, which outlines how Cape Town is committed to putting an end to load-shedding, improving access to energy for all and maximising efficiency. The Paardevlei solar farm is equipping the city with the knowledge and skills required to develop and manage ever more ambitious renewable energy projects in the future.

Expanding green space in Medellín's Parques del Río Norte

In Medellín, the last decades of rapid urbanisation and the impacts of climate change have increased the risk posed to residents by flooding, landslides and heatwaves. This is especially the case for lower-income communities in the city's north. To address this, Medellín is improving green spaces alongside the Río Medellín - the city's main river - and nine of its tributaries. CFF is supporting Medellín to design these green spaces with 'nature-based solutions' in mind (for example, planting native vegetation and restoring green surfaces to absorb water and reduce temperatures) to protect livelihoods while restoring natural ecosystems. **The project restores 30 hectares of green space – equivalent to 40 football fields - including green corridors, cycling and walking paths and sporting facilities.** It has the potential to almost double biodiversity in the targeted park. The new park will provide cleaner air and cooler temperatures in the summer months, while reducing the risk of flooding and erosion.

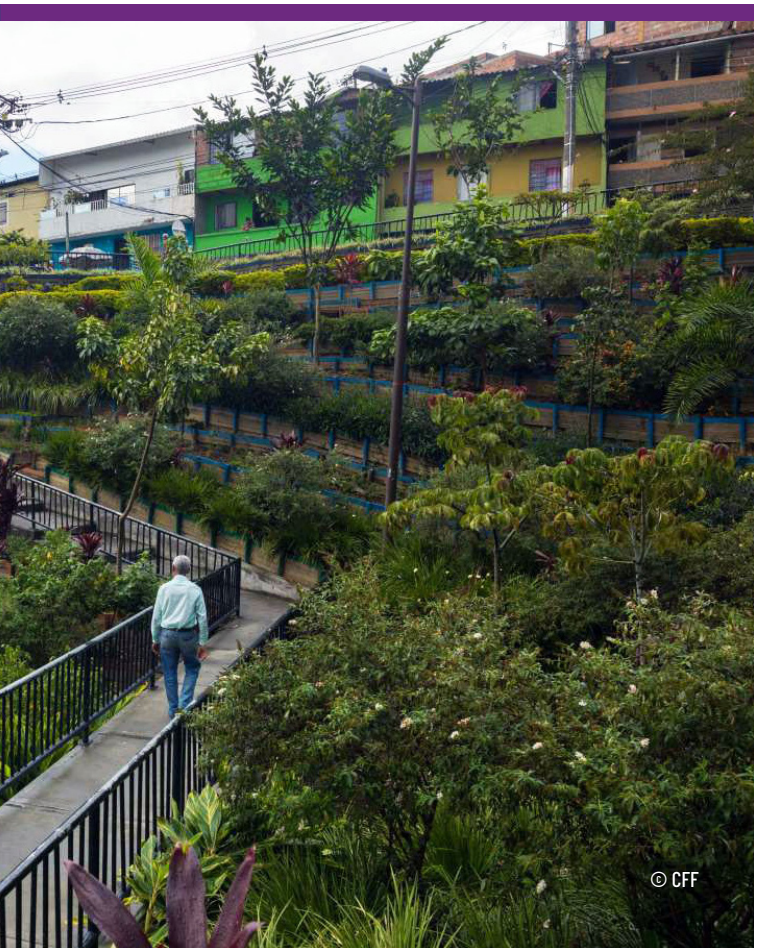
The project aims to transform the northern part of the city, which has the city's lowest rate of green space per inhabitant: **400,000 people will have easy access to the park and the banks of the Río Medellín.** This type of intervention, addressing climate change in a marginalised neighbourhood, can inspire other cities in Colombia and beyond to follow suit.



Protecting against floods and landslides in Salvador's Vila Mar

In Salvador, climate change is expected to intensify extreme rainfall. This will increase the risk of catastrophic flooding and landslides in hillside neighbourhoods located near the city's rivers and streams. Vila Mar, an informal community of 5,000 residents in the north of Salvador, is at the forefront of this ever more pressing subject. 70% of households in Vila Mar face severe climate risks. With CFF support, Salvador has developed a comprehensive proposal to reduce these risks through the implementation of 'nature-based solutions', which include rehabilitating the riverbed, planting trees and plants that reduce erosion and building areas to retain excess water. **This project has the potential to not only reduce climate vulnerability but also to improve access to green spaces and reduce temperatures.** Once implemented, it will result in close to 300 jobs for the construction and maintenance of the new infrastructure.

Vila Mar is just one case of a community at risk in Brazil. It can be **an example for other communities in Salvador,** 17 of which have been already identified for similar interventions. This project, designed by Salvador with CFF support, promises to set out a model of how to protect communities from climate change in an environmentally conscious and inclusive way.



Updates on Former CFF Partner Cities

In the last 4 years, numerous projects supported by CFF since its launch in 2015 have advanced from planning to implementation. CFF closely monitors the development of these projects after its operations conclude and provides ad hoc support where required to ensure that projects are financed and implemented.

The examples below show how CFF-supported cities are realising their climate ambitions. The projects below have been financed through a mix of public investment (e.g., Curitiba, Mexico City and Quezon City – the latter through an innovative tax on disposable plastic bags), public-private partnerships (e.g., Bogotá's bike-sharing system, Jakarta, Rio de Janeiro) and multiple sources including the city's own budget, property owners and international donors (e.g., Durban).

Bogotá, Colombia

Bogotá, the cycling capital of Latin America, launched its **public bike-sharing system** in November 2022. The system is designed with inclusion and accessibility at its core. Out of 3,300 bikes, a significant number are accessible handbikes, cargobikes and child-friendly bikes. There is a 20% discount for lower income residents. Bogotá unveiled its new bike-share system at a concert of the British pop-rock band Coldplay. As of August 2024, the bikes were used for over 3 million trips.

Bogotá's Medio Milenio cycle avenue – one of the first projects ever supported by CFF – is also partly constructed, with 9.6kms of cycle lanes (2 out of 6 sections) in the northern part of the city already constructed and open for use.

Curitiba, Brazil

In March 2023, Curitiba officially launched its **Solar Pyramid**, a landmark project representing the first solar farm to be built on a former landfill in Latin America. The Solar Pyramid project delivered 3.5MW of installed energy capacity. It will reduce emissions by 82,000 tons of CO2e by 2050.

Rio de Janeiro, Brazil

Other cities have been inspired by Curitiba's Solar Pyramid project, such as Rio de Janeiro: the **Solario Carioca** project is a 6MW project also on a deactivated landfill in Santa Cruz. The project, supported by CFF between 2018 and 2021, is expected to be inaugurated in late 2025.

Mexico City, Mexico

Mexico City was one of the first cities ever supported by CFF, between 2016 and 2018. **The bus corridor on Eje 8 Sur**, a lower-income area in the south of the city which was poorly served by public transport. Initially designed by CFF on the existing arterial road, the corridor was eventually constructed on an elevated road, served by 84 new electric trolleybuses and in operation since early 2024.

Monterrey, Mexico

CFF supported Monterrey in the preparation of **three electric bus corridors** connecting communities in the northwest of the city to the metro network. The city procured 110 electric buses in early 2024 to operate on these corridors.

eThekwini (Durban), South Africa

eThekwini (Durban) developed a city-wide **Transformative River Management Programme (TRMP)** to reduce flooding risk, rethinking how the city manages its rivers and streams through prevention, community involvement and circular economy approaches With CFF support, eThekwini expanded the coverage of a community cooperative initiative from 300 to 1,000km of the city's watercourses. Despite the challenges caused by the floods of April 2022, the city continues to be a national, regional and global leader on adaptation, with several awards to its name.

Jakarta, Indonesia

CFF supported Jakarta in procuring its first 30 electric buses for its **Bus Rapid Transit System (TransJakarta)**, by tailoring its operational model around the requirements of the new technology – with higher upfront costs but lower running costs – rather than those of diesel buses. The city then successfully replicated this procurement twice and now counts 300 electric buses in its fleet, with a view to electrify 100% of the BRT fleet by 2030.

Quezon City, The Phillippines

With CFF's support, Quezon City developed **solar photovoltaic systems** on 50 public school rooftops across the city to promote decentralised energy generation and thus improve resilience in the case of extreme weather. Because of school closures during the pandemic, the initiative was broadened to include other public buildings, such as three city hall buildings and three hospitals, all now equipped with solar rooftops.

Outlook

In 2025, CFF is celebrating its tenth anniversary. Since its launch at COP21 in December 2015, CFF has partnered with 30 cities across Africa, Asia, and Latin America, supporting 38 transformative projects, a number which continues to grow. CFF continues to uphold its commitment to work with cities to prepare and implement infrastructure projects that have a tangible impact on the lives of all residents.

CFF continues to be a leading initiative in the field of climate change and cities, as one of the largest independent implementation vehicles for urban infrastructure and one of the few prioritising city ownership, inclusive climate action and city officials' skills and knowledge. CFF's donors and partner cities make its work possible with their guidance and feedback, enabling it to achieve greater impact. Now in its fourth phase of operations (2024-2027), CFF aims to place an even stronger emphasis on climate resilience and social inclusion, to equip cities with the tools and expertise to address the unfair, worsening impacts of climate breakdown.

Partnerships with other initiatives working on cities, climate change, project preparation, and financing continue to be central to CFF's success. For example, CFF is collaborating with the City Climate Finance Gap Fund through joint workshops and activities, marking an important step toward greater synergies in how cities are supported to prepare infrastructure projects. These types of partnerships can strengthen cities from scoping to planning and all the way through to accessing finance.

The launch of the Coalition for High-Ambition Multi-Level Partnerships (CHAMP) in 2023, along with other city-focused national climate finance initiatives, underscores the vital role that cities' action plays in meeting global climate goals. **CFF is ready to continue providing cities with the support and expertise they need** - directly, with partners or by contributing to relevant national programmes - to turn their ideas into infrastructure that makes a difference to people's lives and delivers lasting change.

Annex

List of all CFF-supported projects since 2015

CFF support	Project	City	Country	Sector
2016-18	Cycling for all on Bogotá's Medio Milenio cycle avenue	Bogotá	Colombia	Mobility
2016-18	Electric buses for cleaner air on Mexico City's Eje 8	Mexico City	Mexico	Mobility
2017-21	New buses to lead the electrification revolution in Bangalore	Bangalore	India	Mobility
2018-21	Prioritising access to cycling with new bike share systems in Colombia (Bogotá)	Bogotá	Colombia	Mobility
2018-21	Prioritising access to cycling with new bike share systems in Colombia (Bucaramanga)	Bucaramanga	Colombia	Mobility
2018-21	Prioritising access to cycling with new bike share systems in Colombia (WCali)	Cali	Colombia	Mobility
2018-21	Curitiba Mais Energia - A solar farm on Curitiba's deactivated Caximba landfill	Curitiba	Brazil	Energy
2018-21	Improving resilience to climate change in Dakar's Grand Yoff	Dakar	Senegal	Adaptation
2018-21	Community-based waste management and protecting communities against flooding in Dar es Salaam	Dar es Salaam	Tanzania	Waste / Adaptation
2016-21	Transforming Durban's rivers to protect against flooding	eThekwini (Durban)	South Africa	Adaptation
2018-21	Electric buses to support Guadalajara's public transport system	Guadalajara	Mexico	Mobility
2018-19	Electric buses to support Hermosillo's public transport system	Hermosillo	Mexico	Mobility
2018-21	Improving air quality with electric buses in Jakarta	Jakarta	Indonesia	Mobility
2018-21	New electric bus corridors in the northeast of Monterrey	Monterrey	Mexico	Mobility
2018-21	Prioritising access to cycling with new public bike share systems in Colombia (Montería)	Monteria	Colombia	Mobility
2018-21	Solar PV rooftops on Quezon City's public schools	Quezon City	Philippines	Energy
2018-21	New electric buses for a cleaner public transport system in Quito	Quito	Ecuador	Mobility
2018-21	Solario Carioca – A new solar farm on the Santa Caterina deactivated landfill	Rio de Janeiro	Brazil	Energy
2018-21	Tshwane's first combined heat and power plant	Tshwane	South Africa	Energy / Waste

CFF support	Project	City	Country	Sector
2018-21	Integrating walking and cycling infrastructure into road upgrades in Tshwane	Tshwane	South Africa	Mobility
2021-25	A new system of waste separation and composting in Accra	Accra	Ghana	Waste
2021-24	Making public buildings in Bogotá greener and more energy efficient	Bogotá	Colombia	Energy / Buildings
2021-25	Using nature to protect communities from flooding in Cape Town	Cape Town	South Africa	Adaptation
2021-25	Paardevlei Solar Farm – Cape Town's first city-owned, large-scale solar farm	Cape Town	South Africa	Energy
2021-24	Making public buildings in Dakar greener and more energy efficient	Dakar	Senegal	Energy / Buildings
2021-25	Transforming Drakenstein's Berg River to reduce flooding	Drakenstein	South Africa	Adaptation
2021-25	A cable car project to transform public transport in Freetown	Freetown	Sierra Leone	Mobility
2021-24	Making public hospitals in Jakarta greener and more energy efficient	Jakarta	Indonesia	Energy / Buildings
2023-	Transforming Johannesburg's Jukskei River to protect its communities from flooding	Johannesburg	South Africa	Adaptation
2021-24	Upgrading Kuala Lumpur's City Hall Towers with district cooling	Kuala Lumpur	Malaysia	Energy / Buildings
2021-24	Making public buildings in Kuala Lumpur greener and more energy efficient	Kuala Lumpur	Malaysia	Energy / Buildings
2021-24	A new cycling bridge over the Río Rímac in Lima	Lima	Peru	Mobility
2023-	Protecting Mbombela's communities from flooding	Mbombela	South Africa	Adaptation
2021-24	Expanding green space in Medellín's Parques del Río Norte	Medellín	Colombia	Adaptation
2021-24	Powering Mumbai's electric bus fleet with solar energy	Mumbai	India	Energy / Mobility
2021-24	Creating an eco-depot for Rio de Janeiro's new electric buses	Rio de Janeiro	Brazil	Energy / Mobility
2021-25	Protecting against floods and landslides in Salvador's Vila Mar	Salvador	Brazil	Adaptation
2021-24	Cycle lanes in Trujillo for safer, greener streets	Trujillo	Peru	Mobility

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