


















Framework Programme on Strategic Sector Cooperation with The City of Copenhagen

<p>Key results: The Framework Programme Objective is that citizens of partner cities become more resilient to climate change and improve their quality of life, and cities become cleaner and more efficient in their use of resources. This will be aimed at by working in thematic areas as requested by partner cities within (i) sustainable urban planning with focus on green mobility for pedestrians and bicycles and surface water management and (ii) sustainable resource management; with subthemes: (a) Energy efficiency in buildings (b) wastewater (c) water supply (d) waste management, including biowaste and plastic waste, and (e) greener public food procurement.</p> <p>Justification for support: Through cooperation with four major cities (Sao Paolo, Bogota, Medellin and Johannesburg), the City of Copenhagen will make available its expertise within the thematic areas to facilitate green transition with a strong focus on inclusiveness and establish the foundation for green jobs in the partner cities. The individual SSC projects have been developed in close concertation with partner institutions and provide tools and models for realising their commitments to C40, in which they are all members. It is the intention that the good examples from partner cities are replicated by other cities and at national level, including through the C40 network.</p> <p>Major risks and challenges: The risks include that the bilateral relations with one or more SSC countries could evolve negatively or that national partner authorities' internal processes delay implementation. Furthermore, it is a risk that strengthening of the partner institutions is not sustained after project closure, which is mitigated through the partnership approach.</p>	File No.	23/31133				
	Country	Brazil, Colombia, South Africa				
	Responsible Unit	MYNSAM				
	Sector	43030 Urban Development and Management				
	<i>DKK million</i>	2025	2026	2027	2028	Total
	Commitment	12.45	12.7	17.6	16.95	59.7
	Projected Disbursement	12.45	12.7	17.6	16.95	59.7
	Duration	2025-2028				
	Finance Act code.	06.38.02.14				
	Head of unit	Anette Aarestrup				
Desk officer	Ninna Katrine Holm Sanden					
Reviewed by CFO	Jacob Strange-Thomsen					
Relevant SDGs [<i>Maximum 5 – highlight with grey</i>]						
 1 NO POVERTY	 2 NO HUNGER	 3 GOOD HEALTH AND WELLBEING	 4 QUALITY EDUCATION	 5 GENDER EQUALITY	 6 CLEAN WATER AND SANITATION	
 7 AFFORDABLE CLEAN ENERGY	 8 DECENT JOBS AND ECONOMIC GROWTH	 9 INDUSTRY, INNOVATION, INFRASTRUCTURE	 10 REDUCED INEQUALITIES	 11 SUSTAINABLE CITIES AND COMMUNITIES	 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	
 13 CLIMATE ACTION	 14 LIFE BELOW WATER	 15 LIFE ON LAND	 16 PEACE AND JUSTICE, STRONG INSTITUTIONS	 17 PARTNERSHIPS FOR THE GOALS		

Objectives for stand-alone programme:

Citizens of partner cities become more resilient to climate change and improve their quality of life, and cities become cleaner and more efficient in their use of resources.

Environment and climate targeting - Principal objective (100%); Significant objective (50%)

	Climate adaptation	Climate mitigation	Biodiversity	Other green/environment
Total green budget	50%	50%	N/A	50%

Project	Partner	Budget (million DKK)
Sao Paolo, Phase 1 (2025-27)	City of Sao Paulo	10.0
Sao Paolo, Phase 2 (2028)	City of Sao Paulo	3.4
Johannesburg, Phase 1 (2025-27)	City of Johannesburg, including utility companies	10.0
Johannesburg, Phase 2 (2028)	City of Johannesburg, including utility companies	3.4
Bogota/Medellin, Phase 1 (2025-26)	City of Bogota/Medellin and two water utility companies	10.8
Bogota/Medellin, Phase 2 (2027-28)	City of Bogota/Medellin and two water utility companies	10.0
Communication	City of Copenhagen	0.5
Monitoring and learning	City of Copenhagen	1.0
Mid-term review	TBC	0.6
Unallocated funds	TBC	10.0
Total		59,7

Framework Programme
Strategic Sector Cooperation with the City of Copenhagen
2025-2028

Draft Framework Programme Document
for the Programme Committee

1 August 2024

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Abbreviations

AMG	Aid Management Guidelines
BIOFOS	Copenhagen wastewater utility
C40	C40 Cities Climate Leadership Group
CAP	Climate Action Plan
COGTA	Cooperative Governance and Traditional Affairs, South Africa
DKK	Danish kroner
EAAB	Empresa de Acueducto y Alcantarillado de Bogota
EAM	Empresas Publicas de Medellin (EPM)
EU	European Union
FP	Framework Programme
GHG	Greenhouse gas
IPP	Independent Power Producer
HOFOR	Greater Copenhagen Utility
MFA	Ministry of Foreign Affairs
NERSA	National Energy Regulator of South Africa
NRW	Non-revenue water
SSEG	Small-Scale Embedded Generation
SDG	Sustainable Development Goals
SSC	Strategic Sector Cooperation

1. Introduction

This document outlines the Framework Programme (FP) implemented by the City of Copenhagen under the Strategic Sector Cooperation (SSC), an instrument launched in 2015 engaging Danish authorities in cooperation with partner authorities in developing countries to improve their institutional capacity and framework conditions for a green, inclusive transition and key development priorities.

Guided by the Danish Government's policies, *The World We Share* and the Action Plan for Economic Diplomacy, the Framework Programme outlines the strategic focus of the SSC partnerships implemented by the City of Copenhagen with their partners. The SSC projects address challenges that are defined by the local partners within thematic focus areas where the City of Copenhagen can contribute to address important international challenges in relation to sustainable urban development.

The FP covers the four-year period from January 2025 to December 2028, within a budget of DKK 59.79 million, and it replaces the single-project agreements between the City of Copenhagen and the Ministry of Foreign Affairs (MFA).

The City of Copenhagen is currently implementing SSC projects in three countries: Colombia (Phase 1), Brazil (Inception Phase) and South Africa (Inception Phase). During the four-year duration of this FP, a fourth country may be included in the programme¹.

The FP document describes the thematic focus and expected results, the guiding considerations and the management mechanisms of the Framework Programme and will be the basis of an agreement between the MFA and the City of Copenhagen for the SSC-programme in a four-year period from January 2025.

What is a strategic sector cooperation?

- A peer-to-peer, long-term cooperation between a Danish sector authority or City and an authority in a developing country.
- Tackles selected capacity challenges where the Danish authorities' competences can further significant improvements – but may not tackle all partner capacity constraints to fundamental reform.
- Consists of 1) project-based technical cooperation between the two peer authorities, and 2) a Sector counsellor stationed at the Danish Embassy to facilitate the project and its linkages.
- Typically uses instruments like study tours, seminars, workshops, training courses, and direct engagement of experts for drafting regulations, policies, guidelines, or processes.
- Main inputs consist of Danish authorities' staff time, travels, consultancies, and expenses for workshop/seminars, studies, trainings.
- Projects run in phases and have an inception phase (DKK 1.5 million) for in-depth needs assessment and project design with the peer authority, followed by up to three 3-years phases

¹ The fourth country has not been determined, but Ukraine is a possibility.

2. Context, strategic considerations and justification

2.1 Global challenges

As the world is becoming increasingly urbanised, cities play a critical role in supporting socio-economic development and improving livelihoods. While around one-third of the global population lived in urban areas in 1950, more than half of the global population lives in cities today. According to the UN World Urbanization Prospects², this figure will increase to two-thirds by 2050. Cities and so-called megacities³ in the Global South experience high growth rates with wide migration of rural population to urban areas based on expectations of economic progress, improved livelihoods and opportunities, often with growing slums and vulnerable communities as a consequence. In the context of growing urban populations, city administrations are strained to deliver their responsibilities for primary service and fundamental infrastructure like energy, transport, and housing – as well as public services like education and health care; altogether with wide implications for delivering on the Sustainable Development Goals (SDG's).

The global challenges related to green transition and sustainable development in a city context are often interrelated and interdependent. This calls for a systemic approach where ecological and societal issues are understood and addressed holistically through sustainable urban development. Key challenges of cities can be divided into four themes with relevance to the SSC program of the City of Copenhagen, including 1) Climate change mitigation, 2) Climate change adaptation, 3) Environment and natural capital and 4) Social dimensions and just transition. These are outlined below.

Cities-based climate action is key to realising the global temperature targets cf. the Paris Agreement. According to United Nations Environment Programme (UNEP)⁴, estimates show that about 75 percent of global greenhouse gas (GHG) emissions come from urban areas, with the transport and building sectors being amongst the largest contributors. In this context, cities must effectively and rapidly mitigate scope 1 and 2 GHG-emissions⁵ - and increasingly also address scope 3 emissions - if the global long-term temperature target of the Paris Agreement is to be realised⁶. This calls for an energy transition from fossil to climate-friendly energy sources and scaling up energy-efficient practices, arguably combined with a wider societal transition aligned with the objectives of a just and sustainable transition. In this context, some cities are already delivering climate actions and are recognised as frontrunners on the green agenda, which is illustrated by figures showing that 75 percent of Cities Climate Leadership Group (C40) are cutting per capita emissions faster than their respective national governments.

Cities are at the frontline of climate change and must adapt accordingly. Cities experience wide consequences from climate change, including floods, droughts, water- and energy shortage with implications for citizens in general and especially vulnerable communities. Global South cities are in

² [Urbanization | Population Division \(un.org\)](#).

³ Defined by C40 as cities with +3 million inhabitants.

⁴ [Cities and climate change | UNEP - UN Environment Programme](#)

⁵ C40 definition (XXX)

⁶ According to the Paris Agreement article 2.1(a), the long-term temperature target is to “hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change”.

general more exposed and vulnerable to extreme weather events imposed by climate change, while there are also significant local differences on how various neighbourhoods and communities in a city can cope with such events. While national governments pledged to “increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development (...)”⁷, this can only be realised with strong city-based leadership and action, as cities are at the frontline to the effects but also at the centre of developing, implementing, and scaling up adaptation projects to ensure civic safety and build resilience. In this regard, there is great potential in strategically integrating adaptation measures and nature-based solutions in the wider urban planning of the city.

Cities face a range of interrelated environmental challenges and can limit pollution and utilise resources like energy, water, and waste much more effectively. For example, some cities have up to 30% non-revenue water⁸, and most larger cities in the Global South use open dumpsites for both organic and inorganic waste. The inefficient management of resources, such as water and waste, coupled with pollution of water bodies and air, primarily from fossil-fuelled vehicles, exacerbates these issues. The environmental impact of cities is not confined to their geographical boundaries. Urban expansion, construction of roads, and other infrastructural developments have a local impact. At the same time, the import of resources and goods from other regions has a global environmental footprint. These activities have negative repercussions for nature and biodiversity, both locally and globally. Given these challenges, there is an urgent need for cities to adopt sustainable practices. These practices should be aligned with the principles of the circular economy and the waste hierarchy, which emphasise reducing, reusing, and recycling resources. By doing so, cities can limit pollution, utilise resources more effectively, and contribute to a healthier and more sustainable future. This expanded approach will ensure the well-being of both the environment and the residents of these cities.

A way for cities to limit pollution is to work with sustainable mobility. Sustainable mobility can bring major environmental, economic, urban and health-related benefits. Most importantly of all, it reduces air pollution and noise. Sustainable mobility also includes the important notion of access to mobility, regardless of income or location. Sustainable mobility includes equity in accessibility, with particular attention to more vulnerable groups of the population and geographical areas at risk of social exclusion.

The rapid urbanisation entails considerable challenges for many cities in relation to their water supply, which in many larger cities is already under severe pressure from climate change related droughts and losses in the water system. The latter can reach a third of the water production and is due to both commercial and physical losses. Environmentally, socially, and economically it is much better to reduce the losses than to increase production.

Global South cities face a range of socio-economic challenges related to equality, safety, and health, while a just sustainable transition holds the potential to address these challenges and deliver tangible co-benefits. Poverty is a significant issue in many cities, often stemming from a lack of access to employment opportunities and education. This can be a widespread problem affecting the entire city or it may be concentrated in specific neighbourhoods. Inequality is another major challenge. It is manifested in the unequal access to goods, services, and opportunities. This disparity is often based on factors such as

⁷ Paris Agreement article 2.1(b)

⁸ Non-Revenue Water: How Much Is Lost? | WaterWorld

income, economic position, gender, and race. Such inequality can lead to social unrest and hinder the overall development of the city. Health challenges are predominantly related to environmental pollution. Traffic pollution contributes to poor air quality, leading to respiratory diseases and other health issues. Similarly, pollution of drinking water can lead to waterborne diseases, posing a serious public health risk. Safety issues are also a concern, with urban traffic accidents and extreme weather events posing significant threats. The lack of proper infrastructure and planning can exacerbate these safety challenges.

However, these challenges also present an opportunity for a just and sustainable transition. This involves the creation of green jobs and the promotion of up-skilling and education. Such initiatives can help alleviate poverty and reduce inequality by providing more equitable access to opportunities. Moreover, a sustainable transition can lead to reduced pollution, thereby addressing the health challenges. Improved waste management and the promotion of renewable energy can further enhance the quality of life and livelihoods in these cities.

Cities in the Global South are confronted with significant institutional, financial, and political challenges that hinder their ability to effectively address the socio-economic and environmental issues they face. The institutional capacity of city administrations is often limited, restricting their ability to tackle these challenges effectively. This is compounded by a lack of knowledge and expertise in dealing with such complex issues. Financial constraints pose another major obstacle. Limited access to finance hampers the realisation of policies, projects, and plans aimed at mitigating these challenges. Political will and capabilities, both at the municipal and national levels, are crucial for effective action. However, these are often lacking in these cities. Without strong political commitment and effective governance, efforts to address these challenges may not yield the desired results. Thus, enhancing institutional, financial, and political capacities is critical for the sustainable future of these cities.

As policy developing authorities and hands-on implementers close to the citizens, cities have the potential to deliver and take leadership on the green agenda, while also inspiring other cities and national governments to follow. According to the EU Commission, a city is an organic entity with its own identity, capable of responding to the needs of its inhabitants and influencing its surrounding territory. City administrations are often the driving force behind urban development and progress, spearheading key infrastructure development, transportation systems, urban planning, and job creation. They also provide essential public services like education and healthcare.

In recent decades, cities have emerged as climate leaders, delivering tangible greenhouse gas mitigation and adapting to the effects of climate change. They bear the responsibility for ensuring citizens' security, including resilience to extreme weather events and the provision of non-polluted water. Cities also play a pivotal role in supporting economic and social development. This includes reducing poverty, ensuring the security of supply, creating jobs, and improving livelihoods. These responsibilities extend to various sectors, including mobility, buildings, public spaces, and supply chains. Moreover, while cities are responsible for implementing national laws, they often go beyond these mandates, increasing their ambition levels and inspiring national politics with well-tested solutions.

2.2 The evolving context in the partner cities

The FP includes SSC projects in Colombia (Bogota/Medellin), Brazil (Sao Paolo) and South Africa (Johannesburg). The four partner cities have been selected based on an extensive process in close collaboration between the City of Copenhagen and the Danish MFA. The main selection criteria aligned with the SSC scheme includes 1) interest from the partner city and relevance 2) geographical location in a developing country; 3) Danish representation (Embassy or Consulate General) in the partner city/country; 4) Danish commercial interests in the partner city/country. In addition, City of Copenhagen has set C40 membership as a selection criterion, while emphasis has also been on the potentials for acquiring knowledge and inspiration from the partner city back to Copenhagen to ensure general long-term institutional support from relevant City of Copenhagen administrations.

All four cities are important national hubs for the economic growth of the country which experience a fast urbanization leading to a number of challenges. These include important issues of traffic congestion, inadequate water supply and poor waste management. Furthermore, several of these cities experience frequent problems with flooding caused by heavy rains, a phenomenon exacerbated by climate change.

The cities experience heavy strain on the water supply and a concentration of poverty in informal settlements without running water. Poorer formal neighbourhoods in Bogota may have access to the city's water supply, but they often experience water shortages due to aging infrastructure and inadequate investment in maintenance. These shortages can be particularly severe during the dry season. Residents of poorer neighbourhoods are more likely to experience intermittent water service.

In relation to waste water, the challenge is that urban runoff, industrial wastewater, and sewage overflows frequently pollute rivers and streams, leading to contamination of the cities' water sources. This contamination disproportionately affects low-income communities, who are more likely to live close to polluted water bodies and lack access to proper sanitation facilities.

Only a small part of municipal waste in these cities is recovered. So-called recyclers are responsible for most recovery. Recyclers are informal workers that collect waste from household and other containers throughout the city in small hand pushed carriers for a desperately small profit. A key challenge is that the recyclers are poorly organized, and their work methods are such that the reuseable waste is not systematically collected. At the same time the public collection service by truck is not allowed to compete with the recyclers and are legally obliged to bring all their collected trash to landfill.

There are also challenges for several of the cities regarding energy consumption in public buildings, which revolves around climate mitigation, adapting to a changing climate, inefficient technical solutions, limited overview and decentralised organisation of the service and management. It results in an overconsumption of energy, including through overheating, cooling, lack of insulation, machinery malfunctioning etc. In the partnership, Copenhagen will share its experience with developing a centralised approach for more efficient energy consumption and the two cities will together seek to understand and develop ways the public buildings can lower energy consumption and be better adapted to a change in climate.

Green jobs and -skills are key priorities for supporting a green and just transition, especially for Sao Paolo. At the same time, it is a relatively new topic still requiring development of methodology, data, approaches, and practices.

All four cities have an ambitious climate change agenda and they have developed Climate Action Plans to guide their priorities. The plans constitute an important planning framework for the priorities defined under the SSC projects. The evolving context in the four cities is further described in Annex 5⁹ and briefly summarised for each SSC project in Annex 1.

The C40 Network

All four cities have made important commitments of climate action in the C40 network. C40 Cities, established in 2005 by London's then-mayor Ken Livingstone, is a global network committed to confronting the climate crisis. The organisation, which represents over 22% of the global economy, aims to combat climate change through ambitious, collaborative, and urgent action. Its members, which include Copenhagen, the four cities under this FP and approximately 95 other cities focus on critical sectors such as mobility, energy, and climate change adaptation. Since 2017, C40 Cities has been driving transformative action through its knowledge sharing among experts, clear commitments and technical support. This diverse network of cities collaborates to address the urgent challenges posed by climate change, demonstrating that cities can lead the way toward a more sustainable and resilient future. By leaning up against the C40 network and its work of sharing experience and providing guidance to cities' climate actions, the SSC projects become part of a greater movement, driven by the partner cities themselves, where concrete and practical pilot implementation of C40 concepts can be developed further and tested in the local context.

Cities of C40 are committed to using an inclusive, science-based and collaborative approach to cut their fair share of emissions in half by 2030, help the world limit global heating to 1.5°C, and build healthy, equitable and resilient communities. C40 supports mayors to do this by:

- Raising climate ambition through 1.5°C climate action plan, high-impact accelerators and fostering innovation.
- Building equitable and thriving communities via global and regional programmes.
- Building a global movement through robust international advocacy and diplomacy.
- Scaling up climate action and sharing best practices across high-impact sectors.
- Facilitating access to finance for investment in green jobs and projects that improve resilience in cities.

Bogota and Medellin are engaged in the C40 cooperation, and the previous mayor of Bogota has been member of C40 Steering Committee from 2020 to 2024. Bogota has signed the C40 Clean Air Accelerator, Green & Healthy Streets and Urban Nature. The mayor of Medellin was elected member of the C40 steering committee in 2024. Medellin has signed the C40 Clean Air Accelerator, Equity Pledge, Green & Healthy Street, Net Zero Carbon Buildings and Urban Nature.

⁹ The description in Annex 5 will be included in the main text of the Programme Document in its final version, but has been taken out of this version for the Programme Committee.

The City of Johannesburg was one of the founding cities of the C40 in Africa and has been a member since 2006. Johannesburg is part of multiple networks under C40, where the most notable of them (in relation to the Strategic Sector Cooperation) are the Clean Energy Network, the Urban Flooding Network and the Water Security Network. Following the ratification of the Paris Agreement in 2016, Johannesburg committed to C40's Deadline 2020 Programme designed to support cities to deliver plans which translate the aspirations of the global climate accord into city-level action. This commitment translated into the City's Climate Action Plan (CAP).

Sao Paulo has signed two of the C40 Accelerators, specifically the Water Safe Cities Accelerator and the Urban Nature Accelerator, both of which Copenhagen has also signed and which relate to the cooperation on climate adaptation and urban nature in the SSC partnership.

2.3 Danish policies and the role of the SSC

The City of Copenhagen adopted its current International Strategy in 2021. The strategy will be reconsidered in 2025. The strategy is highly in line with the SSC instrument priorities and the SSC instrument is mentioned as a key part of Copenhagen's international engagement. The strategy is approved by the Copenhagen City Council; hence all seven City of Copenhagen administrations are committed to following and implementing the strategy and its guidelines for international relations and international commitment. The Lord Mayor's Administration/Finance Administration is responsible for reporting on the international strategy to the Finance Committee. Other administrations, such as the Technical and Environmental Administration, have, according to the international strategy, the liberty to decide their own "International Agendas", for implementation and management of international relations based on the international strategy. Key priorities in the strategy includes the following:

- Support sustainable urban development and the combat against the climate crisis globally
- Contribute to the C40 network
- Support green city diplomacy
- Acquire new knowledge and experience to benefit City of Copenhagen
- Support Danish and Copenhagen-based companies.

Key priorities are primarily implemented through extensive participation in the C40 network and SSC-projects, but technical subject/field-specific international engagement in organisations, projects and networks is prevalent across all 7 administrations (in 2021 participation in 27 international networks and organisations and 35 international projects were identified across all 7 administrations in the City of Copenhagen).

Thematic focus of City of Copenhagen's Framework Programme

There is an overall programme design consideration of not spreading over too many thematic focus areas within the SSC projects in order to have a better chance of achieving results, which often require incremental change over longer time within the same area and the same institutions. This consideration should be balanced with an interest in having the necessary flexibility to accommodate the partner institutions and work within the areas they prioritise.

The following thematic focus areas are included in existing and upcoming SSC projects, based on City of Copenhagen's strengths and partners' demand:

- Energy efficiency in buildings (Johannesburg and Sao Paolo)
- Waste management, including biowaste and plastic waste (Bogota/Medellin and Sao Paolo)
- Wastewater treatment, including energy optimisation (Johannesburg and Bogota/Medellin)
- Drinking water/NRW (Bogota/Medellin and Johannesburg)
- Climate adaptation, including flooding/stormwater, heat islands, liveability, urban greenscape design (Sao Paolo and Johannesburg)
- Green mobility for pedestrians and bicycles (Bogota/Medellin)
- Green jobs and -skills (Sao Paulo)

Matching the City of Copenhagen's core competence areas and the thematic areas on the existing/upcoming SSC projects, the thematic focus areas suggested under the Framework Programme going forward are suggested to be:

1. **Sustainable urban planning**, with two sub-themes: (a) Green mobility for pedestrians and bicycles with the overall object of creating liveable cities and (b) Surface water management, green surface solutions, etc. related to climate adaptation. Both of these could also contribute to green jobs.
2. **Resource management**; with subthemes: (a) Energy efficiency in buildings (b) wastewater (c) water supply (d) waste management, including biowaste and plastic waste, (e) potentially greener public food procurement/sustainable food systems.

A cross-cutting element in the FP, which is highly prioritised by the partner cities', is just transition and social inclusion, which includes the city's work in addressing the green transition and the promotion of greener jobs in the private sector. The initiatives taken under the two thematic areas outlined above will be designed to consider social inclusion and job creation, which is further explained below.

[Links to the Danish development strategy](#)

The World We Share from January 2021 sets out the foundation and priorities for Denmark's development cooperation and has two overall priorities to (1) create hope and help more people better where it is hardest and (2) lead the fight to stop climate change and restore balance to the planet.

Danish development cooperation must fight poverty and inequality and promote democracy, sustainable development, peace and stability. In accordance with the approach of Denmark's international development cooperation, the FP will operate with a multidimensional poverty concept, which does not reduce poverty to a question of income. Poverty should be considered broader and includes access to resources in a wider sense, such as education, health, natural resources (including water and land), energy, jobs, rights (including influence on decision-making processes), as well as personal security. Many groups are trapped in several dimensions of poverty, e.g. people with disabilities, indigenous peoples and vulnerable women and children.

Urban planning, provision of basic services and the sustainability of the large cities in middle-income countries are intrinsically connected to poverty. Addressing aspects related to the sustainability and

environmental management of the urban planning therefore also holds the potential to address multidimensional poverty aspects. In Box 1 below, the situation in relation to Johannesburg is described, but the issues are not much different in the other cities targeted through this programme.

Obviously, the SSC projects can only contribute to very narrow aspects of these vast challenges, but it is important that the interventions are defined on the basis of the broader analysis, as well as knowledge of the stakeholders and the political economy aspects that are at play. This analysis is done through a background study undertaken before each SSC project is formulated and updated when a new phase is prepared. The background studies (for which ToR exist in the overall MYNSAM guidelines) should include a gender-specific analysis of the issues, thereby providing the basis for targeting specific activities which can have a positive influence on gender equality and target women and youth in specific activities, including capacity development. Drinking water is a good example of an issue that has an important gender dimension, but also improved mobility for pedestrian and bicycles and recycling of waste have important gender dimensions.

The projects under the FP will systematically focus on results in relation to vulnerable and poor segments of the urban population through the initial analysis of the issues to address in the SSC project with a given city and through a systematic dialogue with partner cities regarding potential poverty impact and by monitoring efforts in this regard during project implementation.

In terms of increasing the efficiency of urban services delivery as part of the SSC projects, a focus on poor and vulnerable groups will be important. Strain on urban water resources, for example, may result in urban informal settlements not having access to running water. Furthermore, the poorest areas in the partner cities may have access to the city's water supply but will often experience shortages due to poor infrastructure and lack of maintenance. Such shortages can be particularly severe during the dry season. Residents of poorer neighbourhoods are more likely to experience intermittent water service. Even when water is available, it may not have sufficient pressure to reach all parts of people's living quarters.

Citizens have legitimate claims to services provided by cities, which are based on rights in national legislation as well as international conventions. Furthermore, with its focus on green job creation, the FP should observe and promote international labour standards, which are aimed at promoting opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and dignity. For example, in many big cities in the Global South, waste pickers play an important role in recycling plastic and other recyclable waste fractions. Often, they are not sufficiently organised and not able to ensure jobs of a decent quality in accordance with the ILO definition of decent work¹⁰. The cooperation with Bogota will aim at improving their efficiency and their business model for a higher rate of recycling and a decent living wage.

Improved mobility is an important aspect of increased access to resources and opportunities for the poor and vulnerable. The FP includes a thematic focus on improving planning and implementation of the infrastructure framework for some of the cheapest means of transport, cycling and walking. Safety is an important concern which is included here.

¹⁰ [Decent work indicators \(ilo.org\)](http://ilo.org)

Improved water supply, less pollution from solid waste and better air quality not only make cities more liveable. More importantly, such preventive measures can improve the health status of all citizens, but especially of the poor who have least access to health services and can least afford out-of-pocket curative health care.

The FP will provide solutions for abating the effects of flooding and cloudburst events that tend to affect poor and vulnerable groups disproportionately. A large number of the population in cities of developing countries live in informal settlements characterized by lack of infrastructure facilities and services. Informal settlements are often located in risk areas such as low-lying lands and riverbanks whereby climatic threats associated with flooding are common.

2.4 Results and lessons from on-going and previous phases of support

In 2020, the independent Evaluation of the Strategic Sector Cooperation confirmed that the SSC delivers relevant and effective results, although the long-term effects and outcomes are still to be verified. The programme has in a short time succeeded to mobilise Danish public sector expertise, which would not have been accessible on commercial terms or otherwise and initiated relevant contributions to the SDGs. Based on the preliminary results, the evaluation considered the programme in many ways to be “punching above its weight” compared to the resources invested. The evaluation also found that the SSC programme contributes to stronger bilateral relations and cooperation between Denmark and SSC partner countries.

The SSC projects have raised the awareness of, and interest in, Danish green solutions and the private sector’s potential contribution to the SDGs. The general experience from SSC projects in other sectors provides the following experience:

- Establishing relations takes time and requires close cooperation with the embassy and presence in the country,
- The wider impact of the SSC project largely depends on cooperation with bigger partners sharing the same agendas,
- Local partners can request support in many different areas, but to ensure results it is important that the SSC projects remain focused on selected intervention areas,
- There can be difficulties in engaging other national partners than the main partner,
- Frequent administrative challenges due to slow partner procedures and high employee turnover at partner authority.

Although the City of Copenhagen’s experience with cooperation with the current cities of the FP is at an early stage, together with earlier experience from finalised SSCs in Beijing and Buenos Aires it largely confirms the general experience with the SSC. The Strategic Sector Cooperation is a relevant tool that has substantial potential to contribute to several SDGs in the partner countries and at the same time strengthen Danish diplomacy and engage the private sector. Some of the examples from City of Copenhagen’s SSC projects are included in Box 2.

The SSC experience shows that working with cities requires an action-oriented approach. Cities do often not wait for national policies but influence these through concrete actions and examples. This has been very clear in Beijing, for example, where the cooperation was centred around concrete actions, rather than directly addressing policies. Cities can create tangible outcomes very fast. This may also be an advantage when working with the private sector.

The experience of the City of Copenhagen confirms that ownership and local appropriation both at political and at technical level of the specific topics for the cooperation is a pre-requisite for ensuring engagement and fostering sustainable institutional improvements. The initial dialogue around potential topics in the inception phase is therefore crucial for the later effects of the programme.

For disseminating ideas, knowledge and results among larger audiences, C40 or other international organisations are valuable partners. The SSC partner cities are all members of the C40 network and the thematic alignment between SSC and C40 should continue to be explored. Linkages to the C40 network are very important for leveraging initiatives within the SSC framework, and they further the replication and wider effects of the SSC. C40 can drive an agenda, and the SSC projects can develop concrete examples and demonstration projects, which show the way also for other members in the C40 network. Through the so-called accelerators, C40 cities engage in peer-to-peer sharing on specific, technical topics addressing the climate crisis.

Box 2: Examples of interim results of SSC projects

Water resources:

- Revised Buenos Aires water plan,
- Improved management of surface water, sponge city demonstration in Beijing,
- Plan for development of the Buenos Aires coastline,
- Public awareness and involvement in water issues (Buenos Aires),
- Piloting anaerobic digestion/energy production and process optimization of municipal wastewater treatment (Buenos Aires).
- Feasibility study on wastewater treatment plant with focus on energy efficiency (Beijing)

Energy efficiency:

- Pilots to monitor and improve energy consumption in buildings (Buenos Aires and Beijing)
- National standard for heating regulation in buildings based on successful pilot (China)
- Examples of building reports and business cases for energy improvements (Buenos Aires).

Urban planning:

- Standards for Walking and Biking (Beijing),
- Integrated climate adaptation plan and resilience to water related disasters, (Buenos Aires)
- Participatory and sustainable human settlement (people-centred planning), (Buenos Aires)
- Joint development of a Climate Adaptation Plan (Buenos Aires.)
- Large scale climate adaptation project “Green Valley” implemented and appointed “national demonstration project” (Beijing)

The project preparation in Colombia has been affected by the local elections in the second half of 2023 and the change of administration from January 2024. Such interruptions are also likely to take place when municipal elections are to be held in Sao Paolo (2024) and in Johannesburg (2026). For all projects, frequent staff rotations in the partner administrations remain a challenge.

DFC has been offering training courses in relation to urban planning, environmental and climate issues, and staff from partner country authorities under the SSCs with the City of Copenhagen have participated in these courses in Denmark. The DFC courses are considered very valuable, especially early in the cooperation where they can provide an opportunity for creating a common understanding of the focus issues of the cooperation. The courses are often too broad to provide the technical knowledge needed but are in most cases supplemented by visits to relevant institutions and City of Copenhagen follow-up with participants. During DFC training courses, the participants design projects they should implement in their own organisation, which generally sought to be relevant for the SSC project.

The SSC projects of the City of Copenhagen with Buenos Aires and Beijing have both been terminated after the first phase. In Buenos Aires, the Danish embassy was closed, which made Argentina ineligible for SSC projects. In Beijing, despite good initial prospects, the implementation was made difficult due to Covid-19 and an important Danish partner (BIOFOS) had to withdraw from the cooperation.

A lesson learned is that political support is an essential prerequisite for advancing the green agenda, and the political support is important for the SSC projects to move forward. Furthermore, coordination with other relevant SSC projects could to a larger extent leverage national impact, for example in countries where the Danish Energy Agency has a cooperation.

3. Framework Programme Theory of Change and Objectives

3.1 Theory of Change

The theory of change describes how the activities and outputs of the SSC projects are expected to contribute to programme outcomes and objective. It should be noted that the outputs and outcomes at the FP level are more general and at a higher level than the outputs and outcomes for the individual SSC projects. The SSC projects should contribute to the FP-level outputs and outcomes (see also the section on reporting, further below). The outputs and outcomes of the SSC projects are determined in close collaboration with the partner institutions, and the results of the SSC projects are the results of the partner institutions to which the SSC projects have contributed, sometimes significantly and sometimes only partly.

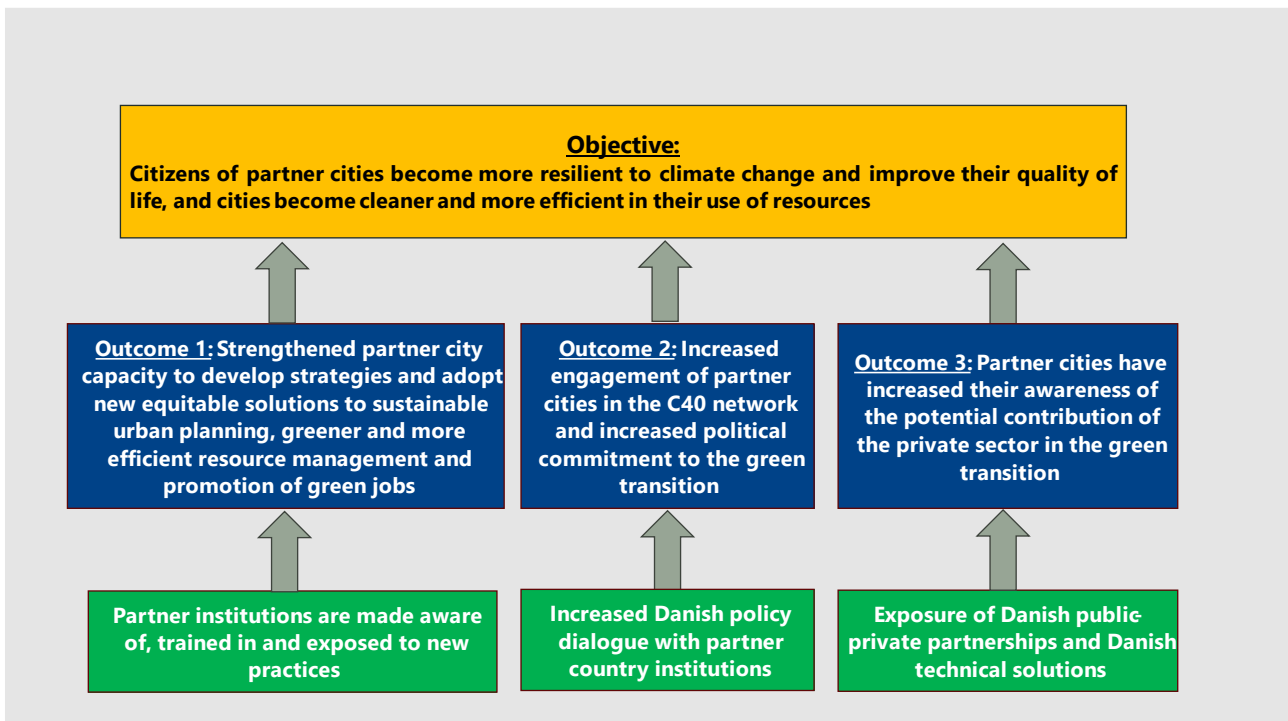
The overall theory of change for the City of Copenhagen's Framework Programme is illustrated in Figure 1 . It indicates that **if** management and staff of partner institutions are made aware of, trained in and exposed to new practices through the SSC projects, **then** this will strengthen partner city capacity to develop strategies and adopt new equitable solutions to sustainable urban planning, greener and more efficient resource management and promotion of green jobs (outcome 1), **which in turn will** improve climate change resilience and quality of life for its citizens.

Furthermore, **if** there is an increased Danish policy dialogue with partner country institutions, **then** this will contribute to increased engagement of partner cities in the C40 network and increased political commitment to the green transition (outcome 2). Finally, **if** partner cities are more exposed to public-private partnership models and technical solutions provided by the private sector, **then** they have increased their awareness of the potential contribution of the private sector in the green transition (outcome 3). Together, these three outcomes contribute to the framework programme objective, but outcome 1 is the main focus of the FP.

The assumptions are:

- a) that the SSC projects are formulated and prepared in close collaboration with the partner institutions and thereby focus on issues which are a priority for the partner institutions and maintain a priority despite possible changes in political leadership,
- b) that staff incentives and organisation of the partner institutions are not hindering a pursuit of the institutional objectives
- c) that partner countries/institutions, despite of political changes and changes in staff and leadership, remain committed to the international partnership approach of the SSC projects
- d) that partner country institutions are able to maintain the capacity and knowledge gained through the cooperation with Denmark and
- e) that partner cities mobilise sufficient funding (internally or externally) to scale up the infrastructure solutions identified and tested through the FP.

Figure 1: Overall Theory of Change of the Framework Programme



It is furthermore assumed that on the Danish side of the cooperation

- f) that key staff of the City of Copenhagen and Danish utility companies involved are available for engaging pro-actively in project management and implementation throughout the programme duration and
- g) that the sector counsellor positions are filled and that the counsellors maintain good relations with partner institutions.

3.2 Framework Programme objective and outcomes

The programme objective and the outcomes of the FP should be identified within the overall objectives and outcomes for MYNSAM 2.0, and they should reflect how the City of Copenhagen contributes to sustainable development and the green transition. The long-term objective for MYNSAM 2.0 – the global SSC programme – is to *promote a socially just green transition and contribute to sustainable growth and resilient development for people in partner countries through Strategic Sector Cooperation.*

It should be emphasised that the SSC aims at developing capacity to improve the sector framework conditions, which includes policies, legislation, regulation and their implementation. This is reflected in the global intermediate objective of MYNSAM 2.0, which is *to contribute to conducive framework conditions in partner countries focusing on the green and inclusive transition and selected development priorities through contributions from the strategic sector cooperation.* Defining relevant framework conditions and the capacity gaps for effective administration of these is therefore a priority in the formulation of the SSC-projects. However, cities are generally not responsible for introducing or for changing the framework conditions, which are in many cases determined at a national level. The implementation of elements related to the framework conditions therefore becomes the focus of the SSC projects of the City of Copenhagen. The solutions developed through the FP in partner cities can be used for inspiration at national level and in other cities and replicated through national institutions and the C40 network.

Framework Programme objective:

Citizens of partner cities become more resilient to climate change and improve their quality of life, and cities become cleaner and more efficient in their use of resources.

All SSC projects formulated under this four-year Framework Programme should contribute to this objective, which focuses on the citizens and the broader liveability of cities and includes both a social dimension, the climate adaptation aspects related to urban planning and water management (both wastewater and drinking water), climate mitigation aspects related to energy efficiency (wastewater, buildings) and environmental aspects related to less pollution, i.e., less air pollution from traffic with improved planning for cycling and pedestrians and increased recycling and less pollution from solid waste. Solutions benefitting poor citizens and those most at risk of climate change will be an important element of the cooperation.

Framework Programme Outcomes:

As indicated in the theory of change Figure 1 above, there are three outcomes of the FP, reflecting the three global outcomes of MYNSAM 2.0. All three outcomes should contribute to the FP objective,

although most activities in the SSC projects will be directly related to Outcome 1. Programme activities in pursuit of Outcomes 2 and 3 must always have the realisation of Outcome 1 as the prime objective.

Outcome 1:

Strengthened partner city capacity to develop strategies and adopt new equitable solutions to sustainable urban planning, greener and more efficient resource management and promotion of green jobs.

The emphasis is on the increased capability of partner city administrations to prepare strategies and introduce new solutions within the three specified thematic areas: sustainable urban planning, greener and more efficient resource management and promotion of green jobs. The solutions promoted by the SSC projects should be equitable, in the sense that they will be based on a multi-dimensional poverty analysis and address the needs of the poor and most vulnerable citizens as reflected in Section 2.3 above. The FP does not aim to establish new framework conditions, since these are often defined at national level, but it is expected that the SSC projects through innovative examples of greener solutions may influence the national regulation.

Outcome 2:

Increased engagement of partner cities in the C40 network and increased political commitment to the green transition through enhanced Danish diplomatic dialogue with key national institutions.

The outcome formulation expresses the expectation to see changes in the level of engagement of the partner city in the C40 network as well as enhanced political commitment in relation to the FP thematic focus areas. The SSC projects will contribute to this outcome, which in turn will contribute to the overall social and environmental objective of the FP. The SSC partnership is an entry point for enhancing the bilateral engagement at political level both directly in the margin of the SSC activities and in the context of C40. As described above, this will be furthered by aligning SSC project focus areas to the partner cities' own commitments reflected in their C40 commitments. The technical working groups of the C40 network will constitute important vehicles for dissemination and replication of the cities' experiences in the green transition, including those initiatives supported through the SSC.

Outcome 3:

Partner cities have increased their awareness of the potential contribution of the private sector in the green transition through exposure of public-private partnerships and technical solutions.

The outcome focuses on the awareness of partners brought about by the SSC projects and the exposure both to innovative models for public-private partnerships and to specific solutions practices in the City of Copenhagen and know-how related to the thematic focus areas.

As indicated above, outcome 1 is the main outcome and the SSC projects will primarily be formulated to contribute to outcome 1, whereas important contributions to outcomes 2 and 3 will also come from diplomacy and trade cooperation undertaken by the embassy/the MFA and by the City of Copenhagen, e.g. through the C40 initiative. To better illustrate the SSC project interventions "on the ground", the table below indicates typical project level outputs under the thematic focus areas, which are all contributing to outcome 1. This should be considered a "long-list" of outputs that the SSC project will pick from, depending on the cooperation focus areas established with partner institutions.

Table 1: SSC project level outputs by thematic focus area

FP thematic focus area	SSC Project-level outputs
Focus area 1: Sustainable urban planning	
1.A: Green mobility for pedestrians and bicycles	Improved sustainable infrastructure planning for pedestrians and bicycles
	Technical solutions demonstrated for infrastructure planning for pedestrians and bicycles
1.B: Surface water management (including flooding) and green surface solutions related to climate adaptation	Increased integration of climate adaptation solutions in urban planning and development
	Urban climate adaptation planning includes nature-based solutions and liveability aspects
1.C: Green jobs and -skills	Increased focus on green jobs in public employment policies and initiatives
	Increased focus on skills development in relation to sustainable urban development
Focus area 2: Resource management	
2.A: Energy efficiency in buildings	Improved energy monitoring and energy management of public buildings
	Strengthened awareness of business cases for energy efficiency improvements
2.B: Wastewater treatment, including energy optimisation	Wastewater treatment processes improved reducing polluting substances
	Improved energy efficiency in wastewater treatment
	Increased energy production from wastewater sludge
2.C: Water supply	Reduced drinking water loss
	Improved stability of water supply
2.D: Waste management, including biowaste and plastic waste	Increased re-use and recycling of solid waste with a focus on biowaste and plastic waste
	Increased energy production from biowaste
	Citizen and businesses align behaviour to improved waste re-use and recycling models

Capacity strengthening is always an important aspect of the SSC projects. This is achieved in various ways, but always respecting the overall approach to capacity development as described within the good practice principles, including:

- Capacity development should strengthen the ownership, engagement and effectiveness of the partner institutions' capability to define, plan and achieve their own sector development objectives on a cross-sectoral, holistic, inclusive and sustainable basis
- Capacity development is addressed at three different levels, namely the enabling environment, the organisational level and the individual level. Interventions at each level are often mutually supportive.
- Capacity development is always undertaken with due respect to the national context, priorities and the resources available for the FP. Capacity development is often undertaken with the involvement of both public and private sector, both in Denmark and partner countries

4. Results framework

Monitoring and reporting of the FP will be based on the results framework below, which should inform the results frameworks of future SSC-projects. The outputs of the SSC-projects are diverse and may not all be captured in the FP results framework, but all SSC-projects should contribute to the FP-level output and outcome indicators. City of Copenhagen and MFA/Embassies are jointly responsible for results especially related to outcomes 2 and 3.

Table 2: Results framework for the Framework Programme

Project/Programme Objective		<i>Citizens of partner cities become more resilient to climate change and improve their quality of life, and cities become cleaner and more efficient in their use of resources</i>	
Outcome (1)		Strengthened partner city capacity to develop strategies and adopt new equitable solutions to sustainable urban planning, greener and more efficient resource management and promotion of green jobs.	
Outcome indicator		Number of institutional systems addressed or improved in partner cities within urban planning, greener and more efficient resource management and promotion of green jobs	
Baseline	Year	2024	0
Target	Year	2028	6 (two for each SSC project)
Outcome (2)		Increased engagement of partner cities in the C40 network and increased political commitment to the green transition.	
Outcome indicator		Number of partner institutions' public declarations of new initiatives and targets in relation to climate-resilient and sustainable urban planning and greener and more efficient resource management	
Baseline	Year	2024	To be determined
Target	Year	2028	12 (additional – one yearly for each SSC project)
Outcome (3)		Partner cities have increased their awareness of the potential contribution of the private sector in the green transition through exposure of public-private partnerships and technical solutions.	
Outcome indicator		Number of PPP models and green technologies introduced in partner countries in relation to the SSC projects.	
Baseline	Year	2024	0
Target	Year	2028	6 (two for each SSC project)

Output 1	Partner institutions are made aware of, trained in and exposed to new practices.
<i>Outcome 1 indicator</i>	TBD
Output 2	Increased Danish policy dialogue with partner country institutions.
<i>Outcome 2 indicator</i>	<i>Number of high-level meetings between the Danish MFA/the embassy/the City of Copenhagen and partner country institutions where international or national initiatives or targets linked to the FP work are on the agenda (annually).</i>
Output 3	Exposure of Danish public-private partnerships and Danish technical solutions.
<i>Outcome 3 indicator</i>	TBD

Note: Indicators and targets at output level will be further elaborated in the further formulation process.

5. Emerging project portfolio: Context and design features

In line with the SSC Guiding Principles, the FP enables the City of Copenhagen to develop and manage a portfolio of projects over four years, based on agreed objectives, outcomes, outputs and overall budget. The FP is established on the basis of the existing SSC projects and includes new project phases, which are not yet fully defined.

The three countries and four partner cities have been selected based on an extensive selection process in close collaboration between City of Copenhagen, the Danish MFA and C40. The main selection criteria include 1) interest from the partner city and relevance 2) geographical location in a developing country; 3) Danish representation (Embassy or Consulate General) in the partner city/country; 4) Danish commercial interests in the partner city/country. In addition, City of Copenhagen has set C40 membership as a selection criterion, while emphasis has also been on the potentials for acquiring knowledge and inspiration from the partner city back to Copenhagen to ensure general long-term institutional support from City of Copenhagen administrations. The involvement of C40 in the selection process has helped guide the best match between Copenhagen expertise and the needs and priorities of the selected cities.

The FP builds on a portfolio of three individually tailored projects that will evolve over the FP period, as new phases develop. The projects will share certain features with respect to contexts and designs, and all draw on several of City of Copenhagen core competencies as relevant and demanded by the partner authorities to address critical challenges related to sustainable urban development and the climate crisis.

The FP is aligned to the national partners' plans, or more ambitious, and will work closely with the Danish embassies and other development partners to ensure a harmonized approach. This with an aim to lift potential impact, enhance ownership, and minimize transaction costs.

All three focus countries are countries with a relatively high influence on regional and global commitments to combating the climate crisis and sustainable development. Colombia is seen as a regional frontrunner on the combat against the climate crisis. Whereas South Africa and Brazil may be characterized as regional leaders, but to some extent lack national commitment to combat the climate

crisis. However, South Africa and Brazil each have four cities being members of C40 creating potential for dissemination of results from the partnerships with Copenhagen as well as potential for influencing national policy in the two countries. All three countries are emerging and medium income countries that have economies increasingly ready to engage with and benefit from advanced Danish knowhow and technologies. Rapid urbanization and concentration of resource use is taking place in an expanding number of their urban settlements. To bring results and lessons learnt to a higher level, the programme will engage with C40, national administrations and other relevant programs and organizations in the three target countries and beyond to help ensure dissemination and replication of results and approaches.

Table 3: Project phases in SSC City of Copenhagen Framework Programme 2025 – 2028

Country and phase	Time period	Status	Thematic Focus	Partner Authority
Colombia, Phase I	April 2024 – Dec. 2026	Current	Wastewater Drinking water Solid waste Green mobility	City of Bogota City of Medellin
Colombia Phase II	Jan. 2027 –	Future	Wastewater Drinking water Solid waste Urban planning - green mobility	City of Bogota City of Medellin
Sao Paolo Phase I	Jan. 2025 – Dec. 2027	Future	Urban planning - climate adaptation, Waste management, Energy efficiency, Green jobs and -skills.	City of Sao Paolo
Sao Paolo Phase II	Jan. 2028 –	Future	Urban planning - climate adaptation, Waste management, Energy efficiency, Green jobs and -skills.	City of Sao Paolo
Johannesburg Phase I	Jan. 2025 – Dec. 2027	Future	Urban planning - climate adaptation, Drinking water Wastewater treatment Energy Efficiency	City of Johannesburg
Johannesburg Phase II	Jan. 2028 –	Future	Urban planning - climate adaptation, Drinking water Wastewater treatment Energy Efficiency	City of Johannesburg

Note: It is assumed that the transition to the Framework Programme financial management will take place 1 January 2025. Inception phases in Sao Paolo and Johannesburg that are expected to be concluded in 2024 are not included.

6. Budget

Figures in the indicative budget below are preliminary and subject to Parliamentary approval. This budget overview reflects the expected support as indicated in the 2024 Finance Act. The current SSC projects only include funding of activities under Outcome 1 of the FP whereas future SSC project phases could also include budgets for activities related to outcome 2 and 3. The allocation of funds in pursuit of Outcomes 2 and 3 must always have the realisation of Outcome 1 as the prime objective.

At the level of each SSC project, the budget and the annual financial reporting is output-based. At FP-level, the annual budget and financial reporting will gradually become output-based, as new projects and phases are being activated. The outputs and outcomes of the new SSC project phases will be aligned to the outputs and outcomes of this FP, which is a prerequisite for preparing an aggregate output/outcome based budget at FP-level. The full transition to output/outcome based budgeting and financial reporting will be completed at the end of this first phase of the FP.

Table 4: Disbursement budget for SSC Framework Programme 1.1.2025 – 31.12.2028 (DKK)

	2025	2026	2027	2028	Total 2024-2028
Colombia, Phase I	5,500,000	5,300,000			10,800,000
Colombia, Phase II			5,000,000	5,000,000	10,000,000
Sao Paolo, Phase I	3,400,000	3,400,000	3,200,000		10,000,000
Sao Paolo, Phase II				3,400,000	3,400,000
Johannesburg, Phase I	3,400,000	3,400,000	3,200,000		10,000,000
Johannesburg, Phase II				3,400,000	3,400,000
Projects, total					47,600,000
Communication	150,000	100,000	100,000	150,000	500,000
Results monitoring, learning and preparatory studies		500,000	500,000		1,000,000
Mid-term review			600,000		600,000
Unallocated funds*			5,000,000	5,000,000	10,000,000
Total	12,450,000	12,700,000	17,600,000	16,950,000	59,700,000

* Unallocated funds are reserved for expansion of the future, planned phases or for initiating an SSC project in a new country agreed between the MFA and the City of Copenhagen.

7. Governance and management arrangements

The FP, which covers so far three countries, is an arrangement between the MFA and the City of Copenhagen, which is an additional layer for a strategic management of the portfolio on the Danish side. The City of Copenhagen is overall responsible for implementing the FP, working closely with the partners and the MFA, including the Danish embassies.

The International Team in the Department for Business, Growth and International Relations; Lord Mayor's Administration/Finance Administration is focal point for the management of current SSC-projects, and will also be focal point for management of the FP.

The FP will follow the Guiding Principles management arrangements, Administrative Manual and Financial Annex, relevant Danish Government policies/strategies and MFA's Aid Management Guidelines. The principle is that the governance of the SSC projects is undertaken through the Project Steering Committees, which include the partner authorities, whereby they are directly engaged in project-level monitoring and decisions.

The Project Steering Committees (PSC) for the individual SSC projects are composed of a high-level representative of the partner organisation, the City of Copenhagen, the relevant Danish Embassy, including the Sector Counsellor as Secretary. The PSC is co-chaired by the Danish Ambassador/Deputy Ambassador and the high-level partner representative. National non-public stakeholders may participate as relevant in project steering committees. The Project Steering Committee is a key forum for equal partnership in decision-making related to the specific SSC-project and is as such the most important. Project Steering Committee meetings are conducted minimum once a year. The responsibility of chairing the meetings rotates between the partners. Additional meetings can be agreed upon on an ad hoc basis. In addition to PSC meetings, the City of Copenhagen and the Sector Counsellor have ad-hoc meetings at technical level with partners for planning the implementation of each SSC project. These meetings also include a level of learning from previous, joint experience between the partners.

The City of Copenhagen and the MFA will engage at two additional levels in the governance and management of the FP:

The Strategic Management Group (SMG), with a mandate to guide the FP's strategic direction, address sector developments, and issues emerging regarding the overall objectives, and approve use of unallocated funds (subject to Aid Management Guidelines (AMG) procedure). The SMG will also guide and advise to maximise the impact of Denmark's international engagement (bi- and multilateral) in the sector and related matters and ensure all stakeholders are adequately informed and guided. The SMG is composed of high-level representatives from the City of Copenhagen and the MFA, with a rotating Chair. The SMG will meet annually in April/May. The TORs for the SMG will be developed in collaboration between the City of Copenhagen and the MFA.

The Programme Management Group (PMG) is responsible for overseeing overall FP implementation and progress, review project progress with respect to results, compliance, and challenges in implementation. The PMG will also approve new projects, new project phases, and phasing out of projects, in accordance with this FP. New phases and new projects will be assessed and decided based

on the focus and considerations defined in this FP document (based on project documents formulated in accordance with AMG, including description of objectives, results frameworks, risks, ToC, budgets, work plans, etc.). The PMG is composed of City of Copenhagen and MFA senior staff involved in FP management and implementation with the City of Copenhagen as Chair. The PMG meets bi-annually, as follows: In February/March, to review the annual progress report and financial expenditure report, and address deviations and challenges in implementation of individual projects; in October/November, to review and approve next years' programme planning and budget and to review the capacity and contributions of all involved stakeholders. The Terms of Reference for the PMG will be developed in collaboration between the City of Copenhagen and the MFA.

The City of Copenhagen will organise and facilitate all meetings and follow-up of the SMG and the PMG. Meeting documentation will be circulated by the City of Copenhagen 14 days in advance of the meeting and summary of meetings will be circulated within one week and finalised within 2 weeks from the meeting.

The selection of new countries and preparation of new project phases will be discussed in the SMG well in advance. Proposals for new phases must be agreed upon in the Project Steering Committee and submitted for initial screening, discussion, and recommendations for approval from the PMG, before submission to the SMG. New and adjusted outcomes will be discussed with partners and the partners are actively involved in preparing new project documents and work-plans thereby guaranteeing that the partnership is equal and that there is ownership in the partner country. The new phases or new projects must be described in project documents aligned with the requirements in the AMG.

The FP will establish processes for systematic sharing of knowledge and lessons between the City of Copenhagen, the MFA and the embassies. Generally during implementation, the City of Copenhagen will facilitate relevant opportunities for Embassies to engage at high-level with partner authorities; and in connection with Danish high-level visits to the countries, the MFA/Embassies will engage with the City of Copenhagen early-on regarding relevant opportunities in connection with such visits; all will explore opportunities through the DFC to enhance learning outcomes.

8. Financial management, planning and reporting

The City of Copenhagen will provide an Annual Progress Report (APR), including a financial report, that assesses the FP's progress, developments, risks and lessons in relation to the FP Results Framework and Theory of Change.

The City of Copenhagen will follow the MFA Guidelines for Financial Management and the SSC Annex on financial implications for a Danish Authority engaging in Danish officially financed Development Assistance. The outputs and outcomes of the new SSC project phases will be aligned to the outputs and outcomes of this FP, which will allow results-based financial reporting. The annual budget and financial reporting at FP level will be output-based, as new projects and phases are being activated. Disbursements are subject to approval by the granting authority in the fiscal year in which the payment is made.

The City of Copenhagen will ensure that the grant is administered in accordance with the corruption clause of the MFA and that the same clause is included in agreements and contracts with partners and

suppliers as follows: *"No offer, payment, consideration, or benefit of any kind, which could be regarded as an illegal or corrupt practise, shall be made, promised, sought or accepted - neither directly nor indirectly - as an inducement or reward in relation to activities funded under this agreement, incl. tendering, award, or execution of contracts. Any such practise will be grounds for the immediate cancellation of this agreement/ contract and for such additional action, civil and/ or criminal, as may be appropriate."* The City of Copenhagen will report immediately to the MFA in case critical incidences or suspicion hereof are observed during the implementation.

9. Monitoring, learning, and risk management

The City of Copenhagen is responsible for monitoring of the projects under the FP based on the three FP outcomes, the project specific results frameworks, risks matrix, and guided overall by Danida Aid Management Guidelines (AMG). It is important to keep focus on this learning process regarding the development issues and how they play out related to their specific technical fields and the thematic focus areas of the FP.

MFA will commission a mid-term review of the FP in 2027 with focus on results progress, lessons learned, organisational management capacity (incl. financial management) of the City of Copenhagen and partner authorities, lessons on cooperation and dialogue with main relevant private sector actors, implementation of programme monitoring and learning system and operationalisation of poverty reduction in the capacity development efforts. The mid-term review will also revisit the results framework and targets.

The programme risks and mitigating measures have been described in Annex 3. The City of Copenhagen will annually review and update the risk assessment for discussion in the PMG and SMG meetings if needed. Risks at the level of the individual projects will be identified and monitored based on the project documents.

10. Closure and exit

The process for closure and exit and/or transition to other forms of partnerships will follow the procedures defined in the SSC guidelines and Danida's AMG. One year before the termination of the FP, the PMG and the SMG should assess and agree on the possible next phase of FP. All SSC projects are likely to end at the end of a third phase, corresponding to approximately 10 years, but can be extended if agreed between the MFA, the City of Copenhagen and the partners. Any project entering phase 3 should include, as part of the project documentation for approval, an outline strategy for transition that ensures sustainability of main project results after project completion.

There are so far few examples of SSC projects transitioning into other forms of cooperation after the last phase of support. A transition strategy should include considerations as to whether there is room for identifying investments under Danida Sustainable Infrastructure Programme (of the partner country is eligible) or through Danida partnership programmes, such as Danida Green Business Programme. Furthermore, it should be considered how the linkages to partner institutions will be maintained after project closure with the view of extending the good relations established during the SSC. Institutions that should be considered to potentially play a role in a post-SSC situation include the Danish authority (i.e.

the City of Copenhagen and utility companies engaged), the MFA/embassy, private companies, lobby organisations and international organisations. In particular, the C40 network is an important player in relation to this FP.

Annexes:

Annex 1: Project contexts and summaries

Annex 2: Partner Assessment

Annex 3: Risk Management

Annex 4: Process Action Plan for Preparation

Annex 5: The evolving context in the partner cities

Annex 5: Plan for Communication of Results (TBC in later version)

Annex 1: Project contexts and summaries

Current Phases/Future Phases

South Africa - Johannesburg

Project title	Strategic Sector Cooperation – Sustainable Urban Development, City of Copenhagen and City of Johannesburg
Project period	Inception phase; 2023-2024 and phase I; 2025-2028.
Country	South Africa - Johannesburg
Main sector development issues	<p>Public service and infrastructure is in general challenged by the high rate of rapid urbanisation with more than a 50% increase in population size over the last 30 years.</p> <p><i>Energy efficiency in public buildings</i></p> <p>Majority of energy consumed in Johannesburg is produced from the country's vast coal deposits, though the city has great ambitions to a higher degree of renewable energy sources in the coming years. Daily load-shedding due to insufficient electricity production is a major problem of citizens and business.</p> <p><i>NRW</i></p> <p>Johannesburg currently experiences substantial water losses, estimated to be 50% of its annual water purchase. Water insecurity is expected to get worse due to climate change, dilapidated infrastructure and lack of maintenance.</p> <p><i>Flooding/ climate adaptation</i></p> <p>Siltation, poorly maintained storm water infrastructure and intense rain showers due to climate change are causing an increase in flooding throughout Johannesburg and especially in Soweto and other informal/semi-informal settlements. Residents regularly experience that their houses are flooded, and the human and material damages are vast. Especially for the poor communities.</p>
Thematic focus	Sustainable urban development

National/local partner authority (recipient country)	City of Johannesburg, including utilities Johannesburg Water and City Power
Danish authorities engaged	City of Copenhagen, including utilities HOFOR and BIOFOS.
Other Danish partners	VandCenter Syd (BIOFOS and VandCenter Syd work closely together domestically and abroad through the 3VAND strategic, collaborative partnership).
Objective	Inception phase: relevant themes for cooperation identified and application for phase I developed. Phase I: Improvement of performance in management of Energy efficiency in public buildings, NRW (including ground water), wastewater management, Flooding/climate adaptation.
Main components (outcome areas)	Energy efficiency in public buildings, NRW (including ground water), wastewater management, Flooding/climate adaptation.
Results	Improved performance on energy efficiency in public buildings, NRW management (including ground water), wastewater management, management of flooding/climate adaptation.
Significant implementation issues or delays	N.a.
Danish priorities, interests, and coherence	The project is in line with the two overall priorities in Denmark's development strategy <i>The World We Share</i> : To create hope and help more people better where it is hardest: <ul style="list-style-type: none"> a. Improved access to water, energy and resources to reduce poverty, prevent conflict and improve livelihoods. b. Improved health and liveability from less pollution and more urban nature. c. Improved access to green jobs and up-skilling/education to reduce poverty and support social mobility aligned with the objectives of a just green transition.

	<p>Lead the fight to stop climate change and restore balance to the planet. Denmark will invest heavily in climate adaptation and strive to improve nature, the environment and biodiversity and strengthen resilience to climate change, with focus on poor and vulnerable countries and people.:</p> <ol style="list-style-type: none"> a. Cooperating with cities to adapt to climate change through green and grey infrastructure projects to strengthen local resilience to cloudbursts, droughts and other extreme weather events – with a strong link to urban planning and integration of urban nature. b. Mitigate climate change through improved energy efficiency in buildings, improved resource- and water management, improved access to cycling as an alternative to fossil-driven vehicles, and increased carbon sequestration from urban nature.
Main other relevant instruments, engagements, and initiatives managed by the Embassy	
Instrument	Main relevant linkage to SSC project (in a few words)
SSC project 1 Energy	City of Copenhagen is in ongoing dialogue with the Danish Energy Agency on synergies.
SSC project 2 IPR/Digitalization/Innovation	N.a.
Sustainable Agricultural Supply Chain	N.a.
SDG Grants	N.a.
Green Front Mission	The Danish Embassy in South Africa is a Green Front Mission.
Research projects	Relevant research projects are continuously considered.
DFC courses	City of Copenhagen is in ongoing dialogue with DFC on relevant courses.

Colombia – Bogota/Medellin

Project title	Cooperation in Sustainable urban development between the cities of Bogota, Medellin and Copenhagen
Project period	3 years from May 2024
Country	Colombia

<p>Main sector development issues</p>	<p><i>Wastewater treatment</i></p> <p>Bogota and Medellin encounter three main challenges related to wastewater treatment: 1) improving the quality of the highly polluted rivers that the cities are situated by, 2) controlling floods, and 3) introducing sewerage coverage of informal settlements, all while keeping costs to a minimum.</p> <p>Urban runoff, industrial wastewater, and sewage overflows frequently pollute rivers and streams, leading to contamination of the city's water sources. This contamination disproportionately affects low-income communities, who are more likely to live close to polluted water bodies and lack access to proper sanitation facilities.</p> <p>The water and wastewater utilities, Empresas Publicas de Medellin (EPM) y Empresa de Acueducto y Alcantarillado de BOGOTA (EAAB), need to optimise their main wastewater treatment plants to reduce energy consumption and improve the water quality of the Bogota and Medellin Rivers. At the same time, they have an opportunity to increase production of renewable energy from the wastewater sludge and improve the management of their assets to improve the company economy and reduce their carbon emissions.</p> <p>EPM and EAAB are making progress to improve conditions but face a multitude of challenges. For instance, in Bogota one wastewater treatment plant has been defectively constructed and the construction process of another larger plant has stalled for years. Meanwhile EAAB is running out of options for landfilling the sludge and are looking for options to utilize it instead. The technical expertise of BIOFOS can help EAAB overcome these challenges.</p> <p><i>Water loss</i></p> <p>Bogota and Medellin are growing rapidly, largely fuelled by a significant influx of rural population and refugees from Venezuela. This surge in urbanization brings about considerable challenges, including a heavy strain on the water supply and a concentration of poverty in informal settlements without running water.</p> <p>Poorer formal neighbourhoods in Bogota may have access to the city's water supply, but they often experience water shortages due to aging infrastructure and inadequate investment in maintenance. These shortages can be particularly severe during the dry season. Residents of poorer neighbourhoods are more likely to experience intermittent water service. Even when water is available, it may not have sufficient pressure to reach all parts of the house.</p> <p>Both Bogota and Medellin report losing a substantial portion of their drinking water supply, estimated at 35 % and 30 % of total production respectively. This situation forces them to confront a critical decision: whether to invest in the creation of new dams for water reservoirs or to</p>
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undertake substantial measures to curb water loss. Environmentally, socially, and economically it is much better to reduce the losses than to increase production.

Water losses in Bogota and Medellin are roughly divided 50-50 between commercial and physical losses. Commercial losses mainly refer to theft of water for instance from informal settlements without established drinking water infrastructure. HOFOR has minimal experience within this issue, why the cooperation will focus on physical losses.

Physical losses consist of water lost from leakages in the distribution system, where no human users benefit from the water. Detection and repair of leakages in the two cities is hindered by lack of segmentation and monitoring of the network as well as a variety of material and age profiles of the pipes. HOFOR has ample experience in leakage detection and the planning of pipe maintenance.

Solid waste management

Around 85 % of municipal solid waste in Colombia ends up in landfills and only about 15 % is recovered. So-called recyclers are responsible for most recovery. Recyclers are informal workers organized in communities that collect waste from household and other containers throughout the city in small hand pushed carriers for a desperately small profit.

A key challenge is that the recyclers are poorly organized, and their work methods are such that the reuseable waste is not systematically collected. At the same time the public collection service by truck is not allowed to compete with the recyclers and are legally obliged to bring all their collected trash to landfill. As a consequence, the cooperation will support the recyclers' work to improve their efficiency and their business model for a higher rate of recycling and a decent living wage. At the same time, the cooperation will focus on assisting the municipal handling of bio-waste that is not in competition with the recyclers.

- Another challenge that both Bogota and Medellin face is lack of knowledge and indiscipline among citizens that leads to poor separation of waste fractions.

In addition, public recycling of waste material must be proven cheaper than bringing it to landfill, which in turn is relatively cheap.

- A shift from the landfill disposal model into a more environmentally, socially, and perhaps, financially suitable "circular economy" type model will require not just a considerable investment in terms of appropriate infrastructure but also major efforts in civic education and behavior. The city of Copenhagen has ample experience in moving towards a circular economy model for waste management.

Mobility for cyclists

	<p>Colombia has the richest bicycle culture in all of the Americas. Bogota has expansive bicycle infrastructure relative to other cities in the region. Nevertheless, bicycles are only used for 7 % of all trips in Bogota.</p> <p>Given the strong culture for bicycling its use has the potential to increase significantly with the improvement of infrastructure. For instance, bicycle parking is a major obstacle for the daily use.</p> <p>Bicycles are relatively cheaper than cars and motorcycles, which is why cycling can contribute to supporting social mobility through equal and safe access to jobs and studies. Low transport costs make cycling particularly attractive to people on low incomes. A coherent cycle path network can help create a well-functioning and safe transport network that is accessible across age groups and income levels.</p> <p>Cycling and walking do not emit CO2, and when commuters switch from cars to cycling, the general emissions from transport work are thereby lowered. Cycling and walking are space-efficient, which frees up road space for e.g. freight or necessary car journeys.</p> <p>Out of the 17 global goals, the UN estimates that cycling can support 8 (Analysis of the transport relevance of each of the 17 SDGs (un.org)) or up to 11 (Sustainable Development Goals & Cycling - United Nations Western Europe (unric.org)). Denmark's green think tank CONCITO also emphasizes the need for a shift in mobility in a concept note of December 2023, and concludes that "it will be very difficult for many low-income countries to reverse the trends and shape a more sustainable mobility future if they stand alone. Substantial financial, technological and institutional support from high-income countries is likely to be needed.". Other players who recommend cycling and walking as measures to reduce CO2 emissions are C40</p> <p>Bogota has just over 500 km of bicycle lanes and a goal to reach 1000 km by 2035. For this purpose, they work to mainstream introduction of quality bicycle lanes when redoing main streets in the city. At the same time, they aim to significantly improve bicycle security and parking possibilities. All issues where Copenhagen has ample experience that can benefit the efforts to enhance bicycle usage.</p>
Thematic focus	Sustainable urban development
National/local authority (country) partner (recipient)	City of Bogota and the water utility company Empresa de Acueducto y Alcantarillado de BOGOTA (EAAB) and water utility company Empresas Publicas de Medellin (EPM) and

Danish authorities engaged	City of Copenhagen, including utilities HOFOR and BIOFOS.
Other Danish partners	
Objective	<p>The main objective is to contribute to a just green transition and improved conditions for the most poor and vulnerable Colombians through a sustainable urban development. For this purpose, Copenhagen will support Bogota and Medellin to improve service delivery, framework conditions and competence development in the following key areas:</p> <ol style="list-style-type: none"> 1. Wastewater treatment 2. Water loss 3. Solid waste management 4. Mobility for cyclists and pedestrians
Main components (outcome areas)	<p>Empresas Publicas de Medellin (EPM) and Empresa de Acueducto y Alcantarillado de BOGOTA (EAAB) increase production of renewable energy from wastewater sludges, improve effluent and reduce energy consumption.</p> <p>The baselines for the 3 companies in Colombia are: Salitre, EAAB: 761.252 Nm³ per month San Fernando, EPM: 414.748 Nm³ per month Aguas Claras, EPM: 959.195 Nm³ per month</p> <p>The potential for an increased production has to be determined during the project period, but the goal will be to significantly increase the biogas production at the three plants over the three-year period.</p> <p>Empresas Publicas de Medellin (EPM) and Empresa de Acueducto y Alcantarillado de BOGOTA (EAAB) reduces their loss of water from the distribution network.</p> <p>The baselines for the two companies are: Baseline: EAAB water loss in 2022, roughly 35 %. Baseline: EPM water loss in 2022, 31 %.</p> <p>Waste handling in Bogota follows more circular model with focus on reuse and recycling of solid waste relating to organic waste, plastic waste, and citizen involvement.</p> <p>The prior city government of Bogota had a goal to reach 10 % recycling by the end of 2023, but they did not manage to get close. The goal of the SSC is to assist the new city government in reaching the 10 % target by the end of 2027.</p>

	<p>Improved infrastructure planning facilitates increased number of commutes done by bicycling and walking in Bogota</p> <p>Baseline: In 2022 Bogota had less than 600 km of bicycle lanes. By the end of the project period, the goal is to have increased this to more than 800 km. This will support the local government in reaching its goal of 1000 km bicycle lanes by 2035.</p>
Results	<p>The goals of the project are to:</p> <ul style="list-style-type: none"> • significantly increase the biogas production at the three plants over the three-year period. • significantly reduce technical water losses in Bogota and Medellin. • significantly increase recycle household waste in Bogota. • Increase from less than 600 km bicycle lanes to 800 km of bicycle lanes.
Significant implementation issues or delays	
Danish priorities, interests, and coherence	
Main other relevant instruments, engagements, and initiatives managed by the Embassy	
Instrument	Main relevant linkage to SSC project (in a few words)
SSC project 1 Energy	
SSC project 2 IPR/Digitalization/Innovation	City of Copenhagen, DFC and the Embassy are planning a follow up course in Bogota on data
Sustainable Agricultural Supply Chain	
SDG Grants	
Green Front Mission	
Research projects	
DFC courses	City of Copenhagen is in ongoing dialogue with DFC on relevant courses.

Brazil – Sao Paulo

Project title	Strategic Sector Cooperation – Sustainable Urban Development, City of Copenhagen and City of Sao Paulo
Project period	Inception phase: nov. 2023 to nov. 2024 Phase 1: 2025-2028 (expected)
Country	Brazil
Main sector development issues	<p>Changing climate and adaptation</p> <p>Some of São Paulo's main climate challenges are increasing frequency and intensity of cloudbursts and higher temperatures leading to floods and heat waves that pose a health risk to residents. The need for improved climate adaptation practices is highly relevant in urban planning, e.g. of new development areas targeting vulnerable communities. Likewise, nature-based solutions (e.g. trees and urban rain beds) hold great untapped potential as adaptation measures, while at the same time providing improved conditions for biodiversity and for the livability for local citizens.</p> <p>Energy efficiency</p> <p>The key challenge for São Paulo regarding energy consumption in public buildings revolves around adapting to a changing climate and limited overview and decentralised organisation of the service and management. It results in an overconsumption of energy, including through overheating, cooling, lack of insulation, machinery malfunctioning etc.</p> <p>Waste- and resource management</p> <p>Waste management is a key challenge in Sao Paulo, including how to effectively collect and treat waste from households and at urban level. Poor management of waste poses a health risk, it hinders effective water management (e.g. in cases of cloudbursts) and represents an untapped economic potential (e.g. biogas generation, resource recycling). São Paulo is in the process of updating the waste management plan in which the management of organic waste is one of their key focus areas. In addition, communication and public engagement on waste sorting and collection hold great unfolded potential for improved waste management.</p> <p>Green jobs and –skills</p> <p>Ensuring a green <i>and</i> just transition is a key challenge and priority in Sao Paulo. A main theme is to create new green jobs and enhance the employment opportunities and access for local citizen, including vulnerable groups. At the same time, the green transition requires new skills and overall capacity development, which is increasingly required by private companies as well as public institutions. City of Sao Paulo has a potential to support a process where employees and employers are equipped for the green transition – both</p>

	related to the other topics (climate adaptation and urban nature, resource- and waste management, and energy efficiency in buildings) and beyond in other sectors.
Thematic focus	Sustainable urban development, climate mitigation and –adaptation
National/local partner authority (recipient country)	City of Sao Paulo
Danish authorities engaged	City of Copenhagen, including utility company HOFOR.
Other Danish partners	C40 (Danish office), CLEAN
Objective	Inception phase: relevant themes for cooperation identified and application for phase I developed and approved. Phase I: Capacity development, technical knowledge sharing and project development related to the main components/outcome areas (see below).
Main components (outcome areas)	Climate adaptation (cloudburst, flooding and urban heat island) through nature-based solutions; energy efficiency in public buildings; waste- and resource management, green jobs- and skills
Results	-
Significant implementation issues or delays	-
Danish priorities, interests, and coherence	The project is in line with the two overall priorities in Denmark’s development strategy <i>The World We Share</i> : To create hope and help more people better where it is hardest: <ul style="list-style-type: none"> d. Improved access to water, energy and resources to reduce poverty, prevent conflict and improve livelihoods. e. Improved health and liveability from less pollution and more urban nature. f. Improved access to green jobs and up-skilling/education to reduce poverty and support

	<p>social mobility aligned with the objectives of a just green transition.</p> <p>Lead the fight to stop climate change and restore balance to the planet. Denmark will invest heavily in climate adaptation and strive to improve nature, the environment and biodiversity and strengthen resilience to climate change, with focus on poor and vulnerable countries and people.:</p> <ul style="list-style-type: none"> c. Cooperating with cities to adapt to climate change through green and grey infrastructure projects to strengthen local resilience to cloudbursts, droughts and other extreme weather events – with a strong link to urban planning and integration of urban nature. d. Mitigate climate change through improved energy efficiency in buildings, improved resource- and water management, improved access to cycling as an alternative to fossil-driven vehicles, and increased carbon sequestration from urban nature.
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Main other relevant instruments, engagements, and initiatives managed by the Embassy	
Instrument	Main relevant linkage to SSC project (in a few words)
SSC project 1 Energy	
SSC project 2 IPR/Digitalization/Innovation	
Sustainable Agricultural Supply Chain	
SDG Grants	
Green Front Mission	The Danish Embassy in Brasilia is a Green Front Mission.
Research projects	Relevant research projects are continuously considered.
DFC courses	City of Copenhagen is in ongoing dialogue with DFC on relevant courses.

Annex 2: Partner Assessment

The City of Copenhagen

International strategy and role in C40

The City of Copenhagen adopted its current International Strategy in 2021. The strategy will be reconsidered in 2025. The strategy is highly in line with the SSC instrument priorities and the SSC instrument is mentioned as a key part of Copenhagen's international engagement. The strategy is approved by the Copenhagen City Council; hence all 7 City of Copenhagen administrations are committed to follow and implement the strategy and its guidelines for international relations and international commitment. The Lord Mayor's Administration/Finance Administration is responsible for reporting on the international strategy to the Finance Committee. Other administrations, such as the Technical and Environmental Administration, have, according to the international strategy, the liberty to decide their own "International Agendas", for implementation and management of international relations based on the international strategy. Key priorities in the strategy includes the following:

- Support sustainable urban development and the combat against the climate crisis globally
- Contribute to the C40 network
- Support green city diplomacy
- Acquire new knowledge and experience to benefit City of Copenhagen
- Support Danish and Copenhagen-based companies.

Key priorities are primarily implemented through extensive participation in the C40 network and SSC-projects, but technical subject/field-specific international engagement in organisations, projects and networks is prevalent across all 7 administrations (in 2021 participation in 27 international networks and organisations and 35 international projects were identified across all 7 administrations in the City of Copenhagen). Of special relevance for that FP Copenhagen is currently committed to 3 projects with Kyiv, Ukraine, financed by DANIDA (via "Ukrainefonden"). Projects include technical assistance for initiatives for war veterans, the blind/visual impaired, and development of a climate adaptation plan. Copenhagen and Kyiv have entered a 3-year twin city agreement.

The Copenhagen Lord Mayor currently holds the position of vice-chair in the C40 Steering Committee and Copenhagen is active in several technical expert networks such as the Municipal Building Decarbonization Network, Waste to Resources Network, Urban Flooding Network, Walking and Cycling Network. Results, knowledge and learnings from Copenhagen's two terminated SSC-projects with Beijing and Buenos Aires have to a large extent been shared among C40 members in relevant networks.

Selected strongholds in an international context

Planning for bicycles and pedestrians

The City of Copenhagen stands as a global example on urban planning for cycling and walking with innovative infrastructure, a holistic approach to urban development, and a cultural embrace of cycling.

Founded in data-driven decision-making and active engagement of civic society and private stakeholders, Copenhagen has a long history of delivering a safe and comfortable cycling experience through a network of dedicated lanes, traffic calmed roads and car-free bridges for pedestrians and cyclists. The city's policies seamlessly integrate cycling and walking into broader urban plans, showcasing measurable impacts.

Copenhagen will contribute with knowledge on management of cycling infrastructure. The improved conditions for cyclist and pedestrians and better planning standards are expected to make cycling and walking more attractive, and lead to increased levels of active travel in Bogota as well as higher citizen acceptance of projects.

Copenhagen will share its knowledge on how to integrate cycling and walking in other policies such as environment, urban planning, health, and education. It provides a possible roadmap for the Colombian city to emulate and adapt these strategies in its own unique urban context.

Solid waste management

The backbone of the waste management system in the City of Copenhagen is source separation. Nearly all citizens in Copenhagen have access to specific bins for biowaste, metals, plastics, paper, cardboard, and small electronics at their residence.

The City of Copenhagen has decades of strategic communication to citizens in order to improve separation of all the different waste fractions.

Climate Adaptation

Since the development of the City of Copenhagen Climate Adaptation Plan in 2011 and the Cloudburst Plan in 2012, Copenhagen has been on the international forefront of climate adaptation. Climate adaptation work not only focus on minimizing the risks from future climate change but also take advantage of the adaptation work to improve life quality for the citizens.

Implementation of more than 300 climate adaptation surface solutions and 130 underground solutions are planned. 60 are in process and 29 implemented by the City of Copenhagen and the water utility company HOFOR. Hence City of Copenhagen and HOFOR have broad experience in all aspects of climate adaptation from planning to implementation.

Energy efficiency in public buildings

In December 2017 the City of Copenhagen, Properties, received a C40 award for the City's digital Energy Monitoring System (EMS) and the energy savings this system made available. Copenhagen was the first C40 member-city to have a city-wide EMS on all municipal buildings, as well as a dedicated organization unit behind this system to manage and use the data for efficient operations and strategic

business intelligence. The award has led to further engagement in C40's Municipal Building Decarbonization network – with Copenhagen now acting network lead. The EMS system monitors heat, water and electricity consumption and combined with the buildings management systems (BMS) Copenhagen now makes informed decision on energy efficiency in buildings investment and operations. A key component in the system is a comprehensive learning program for building managers.

Copenhagen City Properties is the municipal building administrator of the City of Copenhagen. They own and administer 2,2 million m² of public floorspace and aim to provide reliable and cost-efficient facility management to the City's administrations. This also includes a strong focus on energy efficiency. Since 2010 the City of Copenhagen has reduced its energy consumption with 30 % in its buildings along with exploring new technologies to ease operation and troubleshooting. A large amount of these efforts are carried out in a business case model, with payback times of 6-10 years.

City of Copenhagen utility companies engaged in the SSC projects

BIOFOS - Wastewater

BIOFOS is the largest wastewater utility company in Denmark treating wastewater from 1.2 million people living in Greater Copenhagen Area. As one of the world's first wastewater utility companies BIOFOS was able to achieve a positive energy balance in 2014. Presently, the overall energy balance is 151% across BIOFOS 3 treatment plants. BIOFOS achieve this by using the resources contained in the wastewater for climate-friendly energy in the for the grid.

BIOFOS uses sludge from the wastewater to produce biogas which, when upgraded, is sent to the public grid. Residual sludge is incinerated and used for heating. At the same time treatment methods are optimised for energy savings in traditionally extremely energy consuming processes.

The City of Copenhagen is the major shareholder in BIOFOS with a 48,10% stake. In addition to City of Copenhagen, several other municipalities in the Copenhagen metropolitan area hold minor stakes in BIOFOS.

HOFOR – NRW and climate adaptation

HOFOR is the largest utility in Denmark and has the responsibility for distributing drinking water for 1 million people in the greater Copenhagen area. HOFOR has about 7% non-revenue-water, which is one of the lowest in the world for a capital city. HOFOR uses an automatic leakage management strategy based on state-of-the-art technologies and procedures to keep the low water loss.

When HOFOR make decisions, they prioritize their activities and investment using data-driven asset management tools for pipe renewal planning. In this way HOFOR can optimize the lifecycle value of their assets and get most value for money while preserving the low level of water loss.

The City of Copenhagen holds a majority ownership stake in HOFOR. In addition to City of Copenhagen, several other municipalities in the Copenhagen metropolitan area hold minority stakes in

HOFOR. This collaborative ownership model fosters regional cooperation, enabling comprehensive management of utility services across the region. It ensures that utility challenges and needs are addressed holistically, benefiting the entire metropolitan area.

Internal coordination and management of the Framework Programme

The International Team in the Department for Business, Growth and International Relations; Lord Mayor's Administration/Finance Administration is focal point for the management of current SSC-projects, and will also be focal point for management of the FP.

Annex 3: Risk Management

Three main categories of risks must be considered:

- Contextual risk concerning the general risk and fragility factors. Contextual risk are divided into political, economic, societal, environmental/climate and security risks
- (ii) Programmatic risk concerning risk in regard to achievement of programme objectives and
- (iii) institutional risks in relation to the interest of Denmark and its partners.

Contextual risks are the same for all programmes and projects within that particular context (global, regional and/or nation level). Programmatic and institutional risks are at project or programme level.

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Contextual Risks					
Bilateral relations with one or more SSC countries evolve negatively in a way that jeopardises the bilateral relations and prevents a technical cooperation	Somewhat likely	Medium	The SSC programme is in itself aimed at strengthening bilateral relations but has little influence on overall bilateral relations.	If one or more countries are affected by this type of constraint, funds may be re-allocated to other SSC projects.	Bilateral relations with the current SSC countries have in general developed positively but for one or two countries there could be a risk for deterioration.
Pandemics stall or delay project activities and travel	Unlikely	Major	Changing schedule and plans for missions, study tours and other physical events and activities; make use of virtual communication means	Some risk of delays will remain	The COVID pandemic demonstrated how exposed international development activities are to travel restrictions. While these effects are no longer felt by the SSC projects, a new pandemic could arise, but the likelihood is considered low.

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Programmatic Risks					
Key staff of the City of Copenhagen and utility companies involved are not available for engaging pro-actively in project management and implementation	Somewhat likely	Low-medium	Dedicated core staff with an explicit strategy for filling key staff vacancies and introducing new staff.	This is likely to occur to some extent but if reacted upon it will not be detrimental to the implementation.	Keeping momentum in the activity implementation is important. Although the political commitment to the SSC activities is considerable, a situation could arise where key staff momentarily are not available to the extent needed. Frequent changes in key staff could also jeopardise FP management.
Lack of commitment and participation from relevant partner institution stakeholders (high-level management, other authorities, private sector).	Somewhat likely	Medium - high	Due diligence of the selection of partner authorities, emphasis on alignment to national processes and ownership will be crucial. Continuous involvement of high-level management and political level.	It is not unlikely that this will occur to some extent but it should be mitigated	If extensive, lack of commitment could jeopardise achievement of results and the sustainability of the SSC projects
Strengthened capacity is not sustained in the partner institutions	Somewhat likely	High	Use of good practice and tools in relation to capacity strengthening	Some residual risk that the capacity is not sustained.	Through the SSC-projects, the City of Copenhagen will share experience and present the partners for tools and systems used by

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
			and focus on organisational results.		Denmark. Even if these are adopted by partner institutions, they will need to be adapted and modified going forward in order for their sustained use to be effective.
The SSC projects constitute only a minor contribution to possible changes in framework conditions. This could mean that outcomes were only visible after the end of the cooperation or that it is not possible to attribute the effects to the SSC project.	Somewhat likely	Medium-high	The theory of change and the results framework reflect the understanding that the SSC projects may only provide a small contribution to what are in some cases comprehensive changes that are carried forward by partner cities and at national level.	None	Expectations in relation to changes in framework conditions (in a narrow sense) have been moderated, because they are often dependent on national-level institutions, which are not addressed in the SSC with partner cities.
The private sector does not respond to the potential opportunities of engagement	Unlikely	Medium-High	Actively pursuing collaboration with private sector actors in the country and internationally while seeking	There seems to be little residual risk but investments and business opportunities of the industry is driven by many factors beyond	Demonstrating the potential role of the private sector is an inherent part of the SSC projects, but the overall framework conditions are determining the level of engagement.

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
			synergies to other aid modalities and business instruments.	the influence of the SSC	
Institutional Risks					
The sector counsellors don't maintain the needed balance between advising partner authorities and linking with trade council/ Danish commercial actors	Unlikely	Medium	<p>The Embassies and the City of Copenhagen will be responsible for properly defining the expectations for the Sector Counsellor and monitor their performance with inputs from the Partner Authority.</p> <p>In addition to technical skills and knowledge, Sector Counsellors will be selected for their personal skills and ability to exercise good judgement.</p>	With good supervision, little residual risk	The sector counsellors' responsibilities include linking with Danish commercial actors as well as advising partner authorities, and it may not always be straightforward how to best manage the balance between the two roles, for instance to avoid compromising the partner authorities' long-term interests.

Annex 4: Process Action Plan

Process Action Plan MYSAM 2.0 Cooperation with City of Copenhagen

Action/product	Deadlines	Responsible/involved units	Comment/status
Identification			
<i>Coordination and update meeting</i>	Bi-Weekly from 8.11	Copenhagen Municipality (CM), GDK, consultant	By Teams
<i>Start-up meeting</i>	6.10.23	CM, GDK, consultant	Initial PAP Clarify stakeholders and engagement (embassies, external) CM international strategy CM procedure for programme approval.
<i>Revised PAP</i>	6.10.23	Consultant, GDK	
<i>Briefing mail to relevant embassies</i>	9.10.23	GDK, consultant	Heads-up on process and expected embassy involvement, including PAP
<i>Clarify formats and document needs for Framework Programme</i>	8.11.23	CM, GDK, consultant	Discuss deliverables based on consultant's proposed draft document template
<i>On-line meeting with embassies</i>	15.11.23 15.00	GDK	GDK will invite
<i>Meetings with sector adviser</i>	Week 46	CM, GDK, consultant, SSC-adviser	Individual meetings with SSC advisers presenting the current projects
<i>Prepare note with overview of existing portfolio</i>	1.12.23	Consultant	Documentation required: SSC project documents, background documents and progress reports.

Discussion of development challenges and lessons learned	Mid-December	CM, GDK, consultant, SSC advisers	<i>Development challenge</i> <i>Contributions to development policy priorities</i> <i>Contributions to outcome 2 and 3</i> <i>Danish strongholds and relevant thematic issues to include in the FP.</i> <i>Experience and lessons learned from existing SSC projects</i>
<i>Consult commercial and other stakeholders / experts in Denmark</i>		GDK, Consultant	TC, DI, other industry association, research institutions?
<i>Consider consultation with partners in SSC countries</i>		CM, GDK, consultant, SSC advisers	
<i>Prepare draft project summaries for Annex 1 - existing SSC projects and outline of new SSC phases</i>	15.1.24	CM, SSC advisers	
Draft identification note	7.2.24	CM, GDK, consultant	
<i>Meeting with embassy management in relevant embassies</i>		CM, GDK, consultant	<i>Comments to identification note.</i> <i>SSC role in relation to embassy priorities and national context</i> Including commercial agenda, development and green diplomacy.
<i>Discussion of theory of change and results framework based on draft identification note</i>	22.2.24	CM, GDK, consultant	
<i>Comments to draft Identification Note</i>	22.2.24	CM, GDK, consultant	
<i>Final Identification Note</i>	5.3.24	Consultant	
<i>Identification note circulated to embassies for comments</i>	15.3.24	GDK	
Formulation			

<i>CM input to Framework Programme Document</i>	10.5	CM, SSC advisers	Contents and format to be agreed
<i>First draft FP document</i>	22.5	Consultant	
<i>Internal discussion of first draft FP document</i>	23.-30.5	CM, GDK	
<i>Comments to first draft FP document</i>	6.6	CM, GDK	
<i>Second draft FP document</i>	17.6	Consultant	
<i>Interim approval by City of Copenhagen</i>	25.6	CM	
<i>Submission of 2nd draft FP document to Programme Committee</i>	1.8	GDK, consultant	Adjusted to PC meeting schedule
<i>Danida Programme Committee meeting</i>	13.8	GDK, CM	
<i>Discuss PC recommendations</i>	15.8	GDK, CM, Consultant	
<i>3rd draft FP document for appraisal</i>	30.8	Consultant	
Appraisal/quality assurance process			
<i>Quality assurance: Appraisal start</i>	16.9	ELQ	Consultant to prepare draft ToR for appraisal
<i>Draft appraisal report</i>	7.10	ELQ	
<i>Comments to draft appraisal report</i>	14.10	CM, GDK, consultant,	
<i>Final appraisal report</i>	21.10	ELQ	
<i>4th draft FP Document based on appraisal recommendations</i>	15.10	Consultant	
<i>Final FP document</i>	22.10	GDK, CM, embassies,	
<i>Approval of final FP document in CM</i>	1.11	CM	
<i>Final FP document submitted to Council for Development Policy</i>	4.11		Adjusted to Council meeting schedule

Approval			
<i>Meeting in Council for Development Policy</i>	21.11	GDK, CM	Adjusted to Council meeting schedule
<i>Minister for Development Cooperation's approval of Framework Programme</i>		ELQ submits proposed Framework Agreements and minutes of CDP meeting	After Council for Development Policy meeting

Annex 5: The Evolving Context in the Partner Cities

The FP includes SSC projects in Colombia (Bogota/Medellin), Brazil (Sao Paolo) and South Africa (Johannesburg). The four partner cities have been selected based on an extensive process in close collaboration between the City of Copenhagen and the Danish MFA. The main selection criteria aligned with the SSC scheme includes 1) interest from the partner city and relevance 2) geographical location in a developing country; 3) Danish representation (Embassy or Consulate General) in the partner city/country; 4) Danish commercial interests in the partner city/country. In addition, City of Copenhagen has set C40 membership as a selection criterion, while emphasis has also been on the potentials for acquiring knowledge and inspiration from the partner city back to Copenhagen to ensure general long-term institutional support from relevant City of Copenhagen administrations.

Bogota/Medellin

Colombia has seen rapid urbanization over the past decades. According to the latest population and housing census from 2018, 75.5% of its population lived in urban areas. Bogota and Medellin are the two most populated cities of the country.

While cities are important national hubs for the economic growth of the country, the fast urbanization has led to a number of challenges. Cities like Bogota and Medellin are facing important issues of traffic congestion, inadequate water supply and poor waste management.

It is more important than ever to contribute to the development of better cities that are connected, that serve the citizenship and are nice to live in. Therefore, City of Copenhagen's cooperation with Bogota and Medellin, which is in its first phase, focuses on providing sustainable urban development in the following areas:

- Wastewater treatment
- Water loss
- Solid waste management
- Mobility for cyclists and pedestrians

Wastewater treatment

Bogota and Medellin encounter three main challenges related to wastewater treatment: 1) improving the quality of the highly polluted rivers that the cities are situated by, 2) controlling floods, and 3) introducing sewerage coverage of informal settlements, all while keeping costs to a minimum.

Urban runoff, industrial wastewater, and sewage overflows frequently pollute rivers and streams, leading to contamination of the city's water sources. This contamination disproportionately affects low-income communities, who are more likely to live close to polluted water bodies and lack access to proper sanitation facilities.

The collaboration supports the water and wastewater utilities in their efforts to optimise their main wastewater treatment plants, reduce their energy consumption and improve the water quality of the

Bogota and Medellin Rivers. At the same time, they have an opportunity to increase production of renewable energy from the wastewater sludge and improve the management of their assets to improve the company economy and reduce their carbon emissions. The technical expertise of BIOFOS is relevant in this connection.

Water loss

The rapidly increasing population in Bogota and Medellin brings about considerable challenges, including a heavy strain on the water supply and a concentration of poverty in informal settlements without running water.

Poorer formal neighbourhoods in Bogota may have access to the city's water supply, but they often experience water shortages due to aging infrastructure and inadequate investment in maintenance. These shortages can be particularly severe during the dry season. Residents of poorer neighbourhoods are more likely to experience intermittent water service. Even when water is available, it may not have sufficient pressure.

Both Bogota and Medellin report losing a substantial portion of their drinking water supply, estimated at 35% and 30% of total production respectively. This situation forces them to confront a critical decision: whether to invest in the creation of new dams for water reservoirs or to undertake substantial measures to curb water loss. Environmentally, socially, and economically it is by far preferable to reduce the losses than to increase production.

Water losses in Bogota and Medellin are roughly divided 50-50 between commercial and physical losses. Commercial losses mainly refer to theft of water for instance from informal settlements without established drinking water infrastructure. The Danish partners have minimal experience within this issue, and therefore the cooperation will focus on physical losses.

Physical losses consist of water lost from leakages in the distribution system, where no human users benefit from the water. Detection and repair of leakages in the two cities is hindered by lack of segmentation and monitoring of the network as well as a variety of material and age profiles of the pipes. HOFOR has ample experience in leakage detection and the planning of pipe maintenance.

Solid waste management

Around 85% of municipal solid waste in Colombia ends up in landfills and only about 15% is recovered. So-called recyclers are responsible for most recovery. Recyclers are informal workers organized in communities that collect waste from household and other containers throughout the city in small hand pushed carriers for a desperately small profit.

A key challenge is that the recyclers are poorly organized, and their work methods are such that the reuseable waste is not systematically collected. At the same time the public collection service by truck is not allowed to compete with the recyclers and are legally obliged to bring all their collected trash to landfill. As a consequence, the cooperation will support the recyclers' work to improve their efficiency and their business model for a higher rate of recycling and a decent living wage. At the same time, the

cooperation will focus on assisting the municipal handling of bio-waste that is not in competition with the recyclers.

Another challenge that both Bogota and Medellin face is lack of knowledge and indiscipline among citizens that leads to poor separation of waste fractions. In addition, public recycling of waste material must be proven cheaper than bringing it to landfill, which in turn is relatively cheap.

With its new development plan, Bogota has established a solid waste management scheme, based on the circular economy and in compliance with the principles of sustainable development and global development trends.

Mobility for cyclists

Colombia has the richest bicycle culture in all of the Americas. Both Bogota and Medellin have expansive bicycle infrastructure relative to other cities in the region. Nevertheless, bicycles are only used for 7 % of all trips in Bogota and 1 % of all trips in Medellin.

Given the strong culture for bicycling, its use has the potential to increase significantly with the improvement of infrastructure. For instance, bicycle parking is a major obstacle for daily use. Women and ethnic minority populations are the main users of public transportation and walking. However, when it comes to cycling, they represent less than 3% of all users. This is mainly due to a perception of high risks associated with cycling. Thus, security is a key factor for improving bicycle usage.

Bogota has just over 500 km of bicycle lanes and a goal to reach 1000 km by 2035. For this purpose, they work to mainstream introduction of quality bicycle lanes when redoing main streets in the city. At the same time, they aim to significantly improve bicycle security and parking possibilities. All issues where Copenhagen has ample experience that can benefit the efforts to enhance bicycle usage.

C40 commitments

Bogota and Medellin are engaged in the C40 cooperation and the previous mayor of Bogota has been member of C40 Steering Committee from 2020 to 2024. Bogota has signed the C40 Clean Air Accelerator, Green & Healthy Streets and Urban Nature. The mayor of Medellin was elected member of the C40 steering committee in 2024. Medellin has signed the C40 Clean Air Accelerator, Equity Pledge, Green & Healthy Street, Net Zero Carbon Buildings and Urban Nature.

Sao Paolo

The Strategic Sector Cooperation between the City of Copenhagen and the City of São Paulo has been initiated recently. The partnership started its inception phase in 2024, and the two cities are currently exploring challenges and opportunities for the specific topics of the cooperation solutions. The partnership will enter a three-year implementation phase from beginning of 2025 to end of 2027. The partnership is a peer-to-peer collaboration, in which the two cities collaborate in the formulation, design and implementation of sustainable urban development initiatives and projects in Sao Paulo to combat and adapt to climate change while supporting a just green transition. C40 is a knowledge partner.

The collaboration will be centred around four tracks:

- Climate adaptation and urban nature.
- Energy efficiency in public buildings
- Waste- and resource management and
- Green jobs and -skills.

The specific challenges and solutions that will be addressed through the cooperation are still being scoped, hence the following offers a high-level overview.

Climate adaptation and urban nature

Some of São Paulo's main climate challenges are increasing frequency and intensity of cloudbursts and higher temperatures leading to heat waves that pose a health risk to residents. In the partnership, the two cities will build on the experience Copenhagen has established in relation to water management coupled with nature-based solutions and how these can inspire solutions in São Paulo. In addition, and building on efforts already taking place in São Paulo, the two cities will explore ways of developing warning systems, considering the frequency and intensity of events.

Energy efficiency in public buildings

The key challenge for São Paulo regarding energy consumption in public buildings revolves around adapting to a changing climate and limited overview and decentralised organisation of the service and management. It results in an overconsumption of energy, including through overheating, cooling, lack of insulation, machinery malfunctioning etc. In the partnership, Copenhagen will share its experience with developing a centralised approach for more efficient energy consumption and the two cities will together seek to understand and develop ways the public buildings can be better adapted to a change in climate. Furthermore, the two cities will collaborate on a mapping of cooling gasses and a concrete plan to manage and store these to avoid leakage.

Waste- and resource management

São Paulo is in the process of updating the waste management plan in which the management of organic waste is one of their key focus areas. In partnership with Copenhagen, the City of Sao Paolo is interested to learn about organic waste management and biogas. In addition, the two cities will be sharing learnings

and experiences on the communication of waste as resources and how to better facilitate the sorting of waste in cities and the engagement and behaviour of citizens in this process.

Green jobs and -skills

Green jobs and -skills is a key priority with regard to supporting a green and just transition. At the same time, it is a relatively new topic still requiring development of methodology, data, approaches, and practices. The cities will share learnings and experience working with institutions and companies and exploring how they as cities can support a process where employees and employers are equipped for the green transition. At the same time, the green jobs and -skills track can be integrated across the three other tracks when there are employment- and upskilling opportunities.

C40 commitments

Sao Paulo has signed two of the C40 Accelerators, specifically the Water Safe Cities Accelerator and the Urban Nature Accelerator, both of which Copenhagen has also signed and which relate to the cooperation on climate adaptation and urban nature in the SSC partnership.

Johannesburg

The Strategic Sector Cooperation between the City of Copenhagen and the City of Johannesburg has been initiated recently. The partnership started its inception phase in 2024, and the two cities are currently exploring challenges and opportunities for the specific topics of the cooperation solutions. The partnership will enter a three-year implementation phase from beginning of 2025 to end of 2027. The partnership is a peer-to-peer collaboration, in which the two cities collaborate in the formulation, design and implementation of sustainable urban development initiatives and projects in Johannesburg to combat and adapt to climate change while supporting a just green transition. C40 is a knowledge partner.

In 2021, Johannesburg's Climate Action Plan (CAP) was approved by the City Council and formally launched. The CAP sets a vision for a just transition with the combination of two, overarching targets: Net zero carbon emissions and resilient city by 2050. Furthermore, the CAP focuses on enhancing water security, creating resilient human settlements, implementing flood and drought management strategies, developing resilient infrastructure and enhancing the health and wellbeing of communities.

The collaboration will be centred around four tracks:

- Energy efficiency in public buildings
- Water management (drinking water/NRW and groundwater)
- Wastewater management
- Flooding/climate adaptation

Energy efficiency in public buildings

As is the case on the national level, the majority of energy consumed in Johannesburg is produced from the country's vast coal deposits, though the city has great ambitions to a higher degree of renewable energy sources in the coming years.

City of Copenhagen has lowered its energy consumption in public buildings by 20-25% over the past 15 years and the collaboration will build on these learnings and experiences. The team will work on subjects such as carbon emission reduction, energy use reduction, energy cost reduction, Building Management Systems and include technology demonstration projects and training of city officials.

Water management

Water and sanitation are considered basic needs and a human right for every human activity in South Africa. Access to potable water for drinking and domestic use is, therefore, critical in assessing the quality of life of people. However, sanitation and drinking water supply are considerable challenges for many municipalities. The strain on the existing network is amplified by the high rate of rapid urbanisation with more than a 50% increase in population size over the last 30 years¹¹.

Johannesburg's water and sanitation infrastructure is on average 40-50 years old, rapidly deteriorating and underperforming due to inadequate maintenance and lack of capital renewal. Infrastructure investments backlogs are enormous.

Johannesburg currently experiences substantial water losses, estimated to be 50% of its annual water purchase. Water insecurity is expected to get worse due to climate change, dilapidated infrastructure and lack of maintenance hence something has to be done. The large group of poor residents are already feeling the pinch, and this will only get worse unless great progress is made on NRW.

In October 2023, the City Council adopted the City of Johannesburg's Water Security Strategy. The main objective of the strategy is for the city to become and remain a water secure Johannesburg by 2040 and beyond¹². To ensure water security, the city aims to stabilise water availability, improve access and quality, promote sustainable water management practices and maintain a healthy urban environment.

The SSC project will pioneer innovative approaches aimed at minimizing water losses within the water distribution system. The primary objective is to develop a robust proof of concept, showcasing improved methods to water losses effectively. Additionally, the initiative seeks to introduce more efficient asset management practices, contributing to the sustainable and optimized utilization of water resources in Johannesburg.

Wastewater management

The City of Johannesburg has a surface water system where wastewater is discharged into rivers and dams before it is again treated to drinking water at a water treatment plant. Hundreds of thousands of poor residents live in townships downstream from collapsed wastewater plants with water unfit for human consumption. As a consequence, the city is paying hundreds of millions of Rands every year to tanker clean drinking water to these settlements. This again adds to the city's Non-Revenue Water and depletes the finances as much of the water tapped from the city's own fire hydrants and is not billed.

¹¹

https://joburg.org.za/documents_/Documents/Statistical%20Briefs/Issue%2013_%20An%20analysis%20of%20key%20trends%20and%20Indicators%20For%20the%20City%20of%20Johannesburg.pdf

¹² https://joburg.org.za/about_/Documents/CoJ%20Water%20Security%20Strategy%20_%20Final%20rev%20%28Approved%29.pdf

Though the City of Johannesburg's wastewater treatment works are performing sufficiently, some plants do face compliance challenges, posing contamination risks to downstream water bodies and affected residents. Within the Wastewater Management track, the cities have agreed to focus on the optimization of the functioning of the City of Johannesburg's wastewater treatment works, specifically prioritizing operations and maintenance as key focus areas. This will positively affect not only the environment and climate but also the quality of drinking water in the city.

Flooding/ climate adaptation

Siltation, poorly maintained storm water infrastructure and intense rain showers due to climate change are causing an increase in flooding throughout Johannesburg and especially in Soweto and other informal/semi-informal settlements. Residents regularly experience that their houses are flooded, and the human and material damages are vast. Especially for the poor communities.

C40 commitment

City of Johannesburg was one of the founding cities of the C40 in Africa and has been a member since 2006. Johannesburg is part of multiple networks under C40, where the most notable of them (in relation to the Strategic Sector Cooperation) are the Clean Energy Network, the Urban Flooding Network and the Water Security Network. Following the ratification of the Paris Agreement in 2016, Johannesburg committed to C40's Deadline 2020 Programme designed to support cities to deliver plans which translate the aspirations of the global climate accord into city-level action. This commitment translated into the City's Climate Action Plan (CAP).