An exploration of integrated planning in the African context: Transit-Oriented Development Corridors in Johannesburg

A summary of peer exchange discussions and panels from C40’s Financing Sustainable Cities Africa 2019 Forum

Johannesburg, South Africa
June 12-13, 2019
# Table of Contents

Introduction ........................................................................................................................................ 1
GPSC participation ............................................................................................................................... 1
Scope .................................................................................................................................................. 1

1. Know your city ................................................................................................................................. 2
2. Make the business case .................................................................................................................... 3
3. Ensure political support .................................................................................................................. 4
4. Create urban plans .......................................................................................................................... 5
   - Strategy 1: Mobility and Connections ......................................................................................... 5
   - Strategy 2: Densification and mixed land uses ............................................................................ 6
   - Strategy 3: Public and social facilities ......................................................................................... 6
   - Strategy 4: Forging partnerships .................................................................................................. 6

5. Determine capital investment ......................................................................................................... 7
6. Implement ......................................................................................................................................... 7
Taxi reform for the Rea Vaya ............................................................................................................ 8
7. Monitor and evaluate ...................................................................................................................... 9
8. Takeaways ...................................................................................................................................... 9

References ........................................................................................................................................ 11

Resources about the Transit-Oriented Corridors in Johannesburg .................................................... 11
Annex 1. Peer Exchange Agenda ....................................................................................................... 12
Introduction

This peer exchange took place at C40’s Financing Sustainable Cities Africa 2019 Forum. While the forum focused on how to finance sustainable infrastructure such as renewable energy grids, electric buses, and climate adaptation, this peer exchange focused on how Johannesburg has successfully carried out integrated planning through Transit-Oriented Development corridors (TODC) to improve the mismatch between place of work and housing. Johannesburg urban planners also sought to increase mixed-use development in conjunction with mixed-income housing in the TODC. Two planners from Johannesburg’s Development Planning Department shared with urban planners from Abidjan, Cote d’Ivoire and Dakar, Senegal their experience throughout the lifecycle of the project from planning to implementation. This peer exchange was arranged in response to requests from African city delegates whom attended the GPSC City Academy in Singapore in November of 2018.

GPSC participation

Johannesburg
Liana Strydom, Assistant Director of Regional Planning, Development Planning Department
Zain Ally, Assistant Director of Land Use Planning, Development Planning Department

Abidjan
Dandan Pierre, Water and Sanitation Planner
Attahi Koffi, City Planner

Dakar
Diallo Amadou Dioulde, Technical Adviser of Director General of Urban Planning and Architecture, Ministry of Urban Planning, Housing and Public Hygiene
Fatou Sene
Sylla Abdoulaye, Head of Studies and Urban Planning Division, Urban Development Department

Scope

This report outlines how and why the Johannesburg planning department used integrated planning to implement Transit-Oriented Development corridors (TODC), known originally as ‘Corridors of Freedom’ as part of a strategy to create a more walkable, compact city through mixed-use development while also providing mixed-income housing. The steps presented in this report are not intended to be prescriptive for implementing integrated urban planning initiatives. They merely demonstrate the way in which Johannesburg carried out an integrated planning approach through their TODCs.

The Corridors of Freedom aim to connect all Johannesburg residents with economic opportunity. The city itself is spatially divided, a result from South Africa’s apartheid era. The
City of Johannesburg believed creating an efficient transportation mode connecting lower-income, outlying neighborhoods with economic centers along with developing mixed-income housing and mixed-use planning around transit stations would increase economic opportunities. The Corridors of Freedom attempt to connect communities that have been excluded from job opportunities as well as create a more compact city. The City of Johannesburg constructed its transportation backbone through its Bus Rapid Transit System (BRT), called Rea Vaya. While still in the process of being constructed, the Rea Vaya is the focus of the Corridors of Freedom, or TODC. The corridors promote job creation by reducing barriers for new businesses, building new affordable housing units, and establishing public open spaces along active BRT lines. Additionally, planners designed the streets in the corridors to be complete streets, or bike- and pedestrian-friendly (Pieterse & Owens, 2018).

The following report documents how the City of Johannesburg planners implemented TODC and their lessons learned. The project was originally called Corridors of Freedom and was led by a previous mayor, Mayor Parks Tau in 2013, but for political reasons, it is now called Transport Oriented Development corridors (TODC) therefore this report will refer to this project as TODC (Pieterse & Owens, 2018; Corridors of Freedom, 2014 Jun 26).

1. Know your city

Johannesburg is a complex city, spatial inequality is a major part of its history because of South Africa’s history of apartheid planning. Historically white communities and black communities have largely remained segregated, particularly disadvantaging black populations, who lack access to Johannesburg’s economic centers (Griffith, 2017). Since the end of the apartheid, Johannesburg has continued to sprawl in a fragmented, informal manner. Growth has occurred outward, putting pressure on the city’s provision of services and the natural environment. In effect, the city has expanded inefficiently in terms of land use. Not only has the city expanded inefficiently, but it has done so in a way that has made certain communities more isolated and disconnected. In order to learn how best to plan for the City of Johannesburg’s expansion, having a deep understanding with respect to the city’s challenges is essential.

Strydom (2019, Jun 12) stressed that planning requires a deep understanding about what is happening in one’s city. Therefore, it is important to research and understand the major challenges and assets in your city in order to create informed urban plans. Abidjan and Dakar have recently created master plans, signifying that these cities are equipped to consider TOD corridors as an integrated planning initiative.

In conducting research about Johannesburg, the Johannesburg planning department determined that there was a spatial mismatch in terms of where jobs are located and where the majority of the urban population live. For example, about 3% of the Johannesburg metropolitan

---

1 Assistant Director of Regional Planning, City of Johannesburg Development Planning Department, Liana Styrdom
area contains about 33% of the jobs and about 5% of the metropolitan area contains about 33% of housing—these areas do not align spatially (Strydom, 2019 Jun 12). While South Africa’s stock market is located in Johannesburg and the city is known as South Africa’s economic center, the city has a high percentage of unemployment (30%).

The TOD corridors in Johannesburg arose because of the city’s spatial mismatch in terms of the location of housing and jobs in order to increase employment opportunities in the TOD corridors and to address the city’s continued expansion outward. A major question for Johannesburg’s planning department with the TOD corridors was to determine if it was better to bring people to their jobs in a more expeditious manner or attempt to move people to where the jobs are located (Pieterse & Owens, 2018). Both solutions are challenging, but one way Johannesburg planned to deal with spatial inequalities from the apartheid was to connect communities that were historically segregated and also connect people to their jobs through the development TOD corridors. Urban planners discovered the need for TOD corridors through their evaluation of data on Johannesburg to understand their city’s challenges better. Strydom (2019 Jun 12) noted developing, or even updating, master city plans would be a good starting point since planners need learn about their city’s challenges and opportunities before planning integrated initiatives.

2. Make the business case

Before acting on the compact city solution to ameliorate the spatial mismatch in Johannesburg, the urban planning team forecasted three scenarios—business as usual, linear densification, and a compact strategy (this included the TODC approach). These impact analysis scenarios served as the justification for the urban planning department demonstrating that the compact city strategy—through the development of TODC—was indeed the best solution. Travel costs and time, transport energy consumption and carbon emissions would be much lower with the compact solution than if transportation and sprawl continued as business as usual. Carbon emissions would be reduced the most if Johannesburg pursued a compact strategy, equaling about 350 kg of CO₂ reduction per capita. The planning department’s impact analysis made the business case for pursuing a compact city strategy through the development of TODC.

Figure 1. Impact Analysis Linking Spatial Planning to Carbon Emissions
3. Ensure political support

Ensuring political support for any citywide planning endeavor was key for the TOD corridor projects. Former Mayor Tau, a member of the African National Congress political party, used his political capital to push the plan for the Corridors of Freedom forward and used the initiative to unite the city (Pieterse & Owens, 2018). However, Mayor Tau was replaced by Johannesburg’s current mayor, Mayor Mashaba, a member of the Democratic Alliance. Under Mayor Mashaba’s tenure the Corridors of Freedom name was de-emphasized because of its political association with the previous mayor. The project has continued to move forward under the new name of TODC. Garnering political support proved to be an important factor to initiate the Corridors of Freedom. Even though the title of the project has changed, the inherent strategy remains intact largely through the conscious efforts to engage civil society.
4. Create urban plans

The next step for carrying out TOD in Johannesburg was to **create urban plans** that incorporate the TODC. This included planning at the city, corridor, and the precinct levels. Figure 2, to the right, demonstrates examples of plans the City of Johannesburg created for the entire city, a TODC, and a precinct where the TOD corridor would be built—this is the hierarchy of the urban plans that were used to commence the development of TODC in Johannesburg. Plans served as the guiding documents for how TODC would be implemented and where they would be located. Moreover, plans enabled transparent communication with civil society regarding where and how the TODC would impact communities. The following strategies were the focus of the urban plans for the development of Johannesburg’s TODC.

**Strategy 1: Mobility and Connections**

The mobility and connections strategy, used by Johannesburg, relates to job accessibility through the creation of a TODC as the backbone of transportation through Johannesburg. In order to increase efficiency and the likelihood residents will use TOD, transportation needed to be affordable and multimodal. Within the TODC, the City of Johannesburg incorporated a Bus Rapid Transit system called Rea Vaya and tuks-tuks, a type of informal transportation, at BRT stations to aid with last-mile connectivity. Even so, planners needed to focus their efforts—Figure 2 demonstrates the plan for creating infrastructure as a backbone through the city. This infrastructure backbone has served as a place for the city to invest in public transport networks, electric power, pedestrian networks and water and sewer. As such the planning process was integrated horizontally to consider these issues. This concept also aimed to increase access to job opportunities. Apartheid impacted the way the city developed segregating communities and limiting access to jobs and amenities. The aim of the TODC has been to remove these divisions by providing a way to connect communities and promoting equitable access (Pieterse & Owens, 2018).
Strategy 2: Densification and mixed land uses
As part of the compact vision for the city, the urban plan included densifying and promoting mixed land use along the infrastructure backbone. The plan has considered the transport density, social density, economic density and residential density in order to create higher quality cities. The mixed land use plans, and a key element of the TODC goals, has included inclusionary housing to provide affordable housing. In their effort, the City of Johannesburg planners aimed to increase the area’s social and economic value in a way that reduces the city’s greenhouse gas footprint. However, the planners had to determine which areas along the infrastructure backbone that they would focus their efforts to improve social amenities to support the infrastructure backbone. Additionally, the Johannesburg planners strategically considered how to most efficiently use the land to promote a higher economic density, in other words increase the number of jobs, within the TODC.

Strategy 3: Public and social facilities
With this strategy, the City of Johannesburg aimed to increase the quality of life within and adjacent to TODC to make these spaces places where people wanted to be. Job creation was a priority for Johannesburg – the city has a 30% unemployment rate – the TODC also emphasized public spaces, social infrastructure, such as libraries and clinics, and amenities in addition to businesses. Figure 4 shows a completed TODC in Johannesburg that includes pedestrian infrastructure, public spaces and amenities near public transportation intended to increase access.

Strategy 4: Forging partnerships
As is the case with any large infrastructure project, forging partnerships was essential to the success of the TODC. The City of Johannesburg engaged the community but also partnered with international agencies, the national South African government, and the private sector to promote the project. Not only was community engagement integral to the success of the project, the City of Johannesburg realized the importance of coordination among municipalities and with the provincial, national and international partners. The City of Johannesburg planners invested significant time engaging stakeholders and building the groundwork for why and how the development of TODC would positively impact their lives. The city faced a high level of resistance as the TODC were planned to be sited in politically contested areas where contradicting vested interests were at play. Additionally, the communities affected by the TODC corridors were diverse requiring different outreach strategies. The City of Johannesburg
planners found that engaging with smaller groups during community sessions that also involved local expertise was a successful engagement strategy for them to establish community buy-in. The planners wanted communities to co-design the TOD corridors to understand their needs and so the community felt invested in the project. Building trust was a key element as well, the planners encouraged participation and remained transparent throughout the lifecycle of the project in order to maintain and strengthen the trust they had built.

5. Determine capital investment

Making the business case and planning the development are important elements of the TODC but determining how it will be funded was key. The City of Johannesburg planners determined where capital was being invested and attempted to tap into those plans. They also worked to ensure the budget would cover the various phases of the project. Typically, financing an infrastructure project is part of a planner’s work once the need has been identified and stakeholders endorse the plan. However, in Johannesburg’s case, the spatial planning department is in charge of the city’s capital budget, thus the planning department was in a unique position. Having control of Johannesburg’s capital budget certainly enabled the budget for TODC. The City of Johannesburg also secured a loan from the French Development Agency to support Johannesburg’s spatial transformation strategy. The project team worked to facilitate private investment around the TODC.

6. Implement

Currently Johannesburg in the early phases of implementation, this phase started in 2012 and is projected to continue until 2040. As part of the TODC, the City of Johannesburg has implemented the following infrastructure projects: BRT construction, six parks, three new clinics, a new library, Campus Square Sky Walk, part of the Great Walk Bridge and non-motorized transport infrastructure. In order to implement these projects, communication with all stakeholders has been important in Johannesburg. The government engaged with many communities and it took more time than they had originally planned. Continued dialogue with civil society has been key to the success of the TODC.

The City of Johannesburg was forced to prioritize their implementation due to budgeting constraints. The TODC demanded integrated planning because they involve land use, transportation, economic development and public works. This signifies that working across institutions within a local government has been necessary.

Implementation of the TODC has also included engaging with private sector developers in order to promote investment in the TODC leading to compact, mixed use development. However, the city does not have the power to force private investment in the TODC—they can only promote private investment through public investment in the TODC thereby creating an enabling environment for private investment (Pieterse & Owens, 2018).
Taxi reform for the Rea Vaya

The City of Johannesburg began implementation of the Bus Rapid Transit (BRT) system, called Rea Vaya, in 2006 prior to implementing the Corridors of Freedom project. This transportation line has served as the infrastructure backbone for the Corridors of Freedom. In order to have an effective, centralized transportation corridor, the City of Johannesburg realized that the bus system would be competing with minibuses and taxis. Taxi drivers believed they owned the right to the bus routes, so the government worked with the taxi drivers to find a compromise. Also, the city was aware that citizens in Johannesburg are cost-conscious and would go with unsafe transportation options to save money (Seftel 2019, Jun 13). Therefore, Johannesburg transportation planners decided the best path to ensure ridership would be to reduce competition from taxis on the BRT routes and to ensure affordable bus fares.

In order to resolve the competition between the BRT and taxis, the City of Johannesburg incentivized taxi drivers to cancel their permit to operate taxis in the areas where the BRT would operate. As part of this initiative, taxi drivers agreed to turn in their car to be scrapped or repurposed if they were newly purchased. In exchange, the City of Johannesburg agreed to financially compensate taxi drivers based on what they would have earned without the Rea Vaya in operation (Seftel 2019, Jun 13). They were also given the opportunity to become shareholders of the bus company. Additionally, some taxi drivers were trained to be bus drivers which offered a reliable salary and health care as part of the formal economy. The most successful aspect of this program was the taxi drivers who became BRT operators (Seftel 2019, Jun 13).

One lesson learned from this program, mentioned by Executive Director of Transportation, Lisa Seftel (2019, Jun 13), was that the City of Johannesburg needed to consider alternative jobs opportunities for taxi drivers especially in terms of training the taxi drivers in other skills. In response to this lesson learned, the City of Johannesburg continues to invest in taxi drivers building their competence as shareholders of the bus company that operates the BRT. The City of Johannesburg allocates funding to help taxi driver shareholders gain an education about how to be a leader, manager, and businessperson (Seftel 2019, Jun 13). Even with this package of incentives, some taxi drivers returned to driving in other parts of Johannesburg (Seftel 2019, Jun 13). Some taxi drivers still had trouble finding other jobs since driving taxis was all they were familiar with (Seftel 2019, Jun 13). While there were challenges with this taxi reform, the government endeavored to mediate these challenges by finding creative solutions to ensure the success of the Rea Vaya. As new BRT lines operationalize, more taxi drivers are engaged and given the opportunity to become shareholders and build business professional skills.

Executive Director of Transportation, City of Johannesburg, Lisa Seftel

---

2 Executive Director of Transportation, City of Johannesburg, Lisa Seftel
7. Monitor and evaluate

Monitoring and evaluating was important for TODC since there are multiple funders and engaged stakeholders. Monitoring and evaluation is not only about accountability to funders, it also helped the City of Johannesburg with planning the remaining stages of the project. Strydom (2019, Jun 12) mentioned that failing can be part of the process and it is important to document failures in order to learn from them. Additionally, documenting failures can also be helpful for other cities that may be attempting to implement similar projects.

8. Takeaways

The City of Johannesburg shared lessons learned from their endeavor to implement TODC in Johannesburg. Project implementation moved quickly because the planning department had the political backing and budget allocation to do so. In addition, there was external pressure to complete parts of the project in time for Johannesburg to host the World Cup. While this is a unique context, having political support and extensive community engagement makes a difference. The City of Johannesburg also had strong backing from international actors. The project moved rapidly while the city had external support at the international level.

Figure 5. Implementation Timeline for TODC in Johannesburg

<table>
<thead>
<tr>
<th>MILESTONES</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future City Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State of the City Address</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTEF approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation Action Plan Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic Area Framework Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFD Loan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Strydom’s presentation given at this peer exchange. *MTEF (Medium Term Expenditure Framework) is a transparent planning and budget formulation process in South Africa.
As much as planners try to remain apolitical, political support helped to advance the TODC project. One way, the TODC helped to convince politicians and community members of the importance of the infrastructure project, was to demonstrate projects that are very visible such as a good housing project or a new Bus Rapid Transit system. For instance, since its inception Johannesburg’s BRT system, Rea Vaya, now has 48 stations with 59 kilometers of trunk routes—a highly visible project in Johannesburg (Rea Vaya, 2019). The planners in the City of Johannesburg were mindful of the ongoing political debate throughout the entire planning process. The planners in the City of Johannesburg held regular sessions with the mayor and senior officials to keep them informed throughout the process. Strydom (2019, Jun 12) mentioned that the ability to adapt to the changing political environment facilitated the success of the TODC in Johannesburg. Pieterse and Owens (2018) have argued that having political and community support around one vision is oftentimes just as important as the financial and technical aspects of the TODC.
References


Styrdom, Liana. 2019, Jun 12. Assistant Director of Regional Planning, City of Johannesburg Development Planning Department.

Resources about the Transit-Oriented Corridors in Johannesburg

https://www.urbantransformations.ox.ac.uk/blog/2017/2699/

https://www.c40.org/profiles/2014-johannesburg
Annex 1. Peer Exchange Agenda

GLOBAL PLATFORM FOR SUSTAINABLE CITIES - RESOURCE TEAM
PEER EXCHANGE: INTEGRATED PLANNING IN THE AFRICAN CONTEXT
SIDE EVENT AT THE C40 FINANCING SUSTAINABLE AFRICAN CITIES FORUM

THE FINANCING SUSTAINABLE AFRICAN CITIES FORUM

C40 CITIES is hosting the Financing Sustainable African Cities Forum on 12-13 June 2019 in Johannesburg, South Africa. This high-profile event will bring together senior African city officials, investors, private sector stakeholders, international organizations and non-profit partners to discuss regional solutions for cities to scale up investment in sustainable infrastructure. The event will offer a platform for investors and city officials to share a high-profile stage and discuss their perspectives on how to unlock new sources of capital and build successful business models for the projects necessary to meet the goals of the Paris Agreement and prevent dangerous climate change.

OBJECTIVES
• Showcase city good practices from C40 African member cities on financing sustainable infrastructure.
• Raise regional and international awareness about the critical need to scale up investment in sustainable urban infrastructure and solutions.
• Establish connections with regional investors and private sector partners to better support African cities within their specific regional context.
• Build connections between African cities and create opportunities for collaboration across cities to build capacity, remove barriers, and lower project costs.

DETAILS
Location: Johannesburg, South Africa
Venue: 191 Oxford Road, Rosebank, Johannesburg, South Africa, 2132
Format: Two days. First day: Large plenary in morning, moving to breakout workshop sessions in afternoon. Second day: continuation of breakout workshop sessions
Audience
- Size: Approx. 80-120
- Guest type: Senior city officials (Mayor, CFO, Head of Transport or equivalent) from African C40 cities and selected secondary cities in the region, senior representatives from regional development banks, banks, pension funds, impact investors, other investment institutions, philanthropic organizations, regional property development firms, bus manufacturers, green energy developers, insurance and reinsurance companies; international organizations and relevant non-profit partners, etc.
Languages: English with provided translation (French)
Date: 12-13 June, 2019
THE GLOBAL PLATFORM FOR SUSTAINABLE CITIES (GPSC)
The GPSC is a partnership and knowledge platform that promotes integrated solutions and cutting-edge support for cities seeking to improve their urban sustainability. The platform comprises a diverse range of cities and organizations and has been operational since 2017. The partnership is forged thanks to the funding of the Global Environment Facility (GEF) and its led by the World Bank and the Resource Team institutions: C40 CITIES, LOCAL GOVERNMENTS FOR SUSTAINABILITY (ICLEI) and the World Resources Institute (WRI).

The Sustainable Cities program consists of two integral tracks:

1. City-level projects, with a focus on integrated solutions to urbanization across sectors, including urban mobility, ecosystem conservation, climate change adaptation, solid waste management, and smart technologies. As of June 2019, there are 28 cities in 11 countries that are part of the GPSC.

2. The Global Platform for Sustainable Cities (GPSC), which ties all the city-level projects together in terms of strategy and knowledge. As part of the GPSC, the Resource Team develops curated knowledge and training sessions to GPSC city in urban sustainability.

Cities are a natural place to focus on integrated solutions—however, successful integrated solutions are not commonplace. Cities offer fertile ground for integrating traditionally interdependent operating systems, such as energy, transport, water, and waste, although in practice these components have been integrated with varying degrees of effectiveness through cross-sectoral means of land use planning and urban governance. There are strong environmental, social, and economic reasons for advancing these components into better-coordinated human systems and integrating them with natural systems. Such integration can offer tremendous environmental benefits and must be fully encouraged and scaled up in order to effect transformational change.

If you wish to know more information about the GPSC and each of the city-level projects, please refer to attached GPSC report: **Catalyzing Solutions for Sustainable Cities**.

GPSC PEER EXCHANGE: INTEGRATED PLANNING IN THE AFRICAN CONTEXT
The Resource Team of the GPSC has identified an opportunity to utilise the C40-led FINANCING SUSTAINABLE AFRICAN CITIES FORUM 2019 to create a peer to peer exchange opportunity for the GPSC African Cities, namely Abidjan, Dakar and Johannesburg to learn from the Forum’s topic on financing sustainable and low carbon urban infrastructure and have a dedicated GPSC-only side event on integrated urban planning. This African cities only peer exchange was motivated by the feedback received in the GPSC City Academy that took place in Singapore in November 2018.

GPSC cities delegates will meet on June 12 at 13:00 in a working lunch format. The working lunch will be guided by a moderator from one of the Resource Team institutions (ie. C40 staff) in order to guarantee a good conversational flow of the session.

Given that Johannesburg is the host city, city delegates from Johannesburg will be asked to start the conversation with a short presentation on the city’s experience with the “Corridors of Freedom” plan. A great example of integrated planning under the Transport Oriented Development (TOD) concept.
CORRIDORS OF FREEDOM

The City of Johannesburg has created a spatial plan for the city, in line with the Joburg 2040 Growth and Development Strategy. The basis of this plan is transport-orientated development. As such, the plan is to create ‘transport arteries’ throughout the city termed ‘Corridors of Freedom’, which will be linked to interchanges and further housing/retail areas. The plan is for Johannesburg inhabitants to make greater use of public transport on offer, rather than private motorised transport means.

Entrenched settlement patterns which have pushed most residents to the outskirts of the city, will be transformed by the Corridors of Freedom. This will hopefully enable easier access to their places of work and other communal areas in the city centre.

Following the presentation, the moderator will ask the city delegates to share their questions and comments on the Johannesburg presentation. Also, city delegates from Abidjan and Dakar will be asked to share their experiences on transport and integrated planning in their respective cities.

By providing an intimate and informal setup, the objective of this peer exchange is to allow participants to share their experiences, challenges, lessons learned and get feedback from city delegates from other African cities that might be implementing projects with similar scopes.

Audience: 10 people max, 2-3 delegates per city
Length of the session: 90 minutes (including lunch time)
Date & Time: June 12, 13:00 -14:30

Invited Participants:

Abidjan:
  a. Mr Marcel GBA, Deputy Director of Urban Planning, Department of Planning, Construction and Housing
  b. Mr Samuel Marius Zougbo, Deputy Director of Urban Mobility, Transport and Urban Mobility, Department of Planning, Construction and Housing
  c. Mr Kopieu Gouganou, Conseiller Technique, Department of Planning, Construction and Housing (TBC)

Dakar:
  a. Mr Amadou Dioulde Diallo, Technical Adviser of Director General of Urban Planning and Architecture, Ministry of Urban Planning, Housing and Public Hygiene
  b. Mr Seydou Kamara, Chief Municipal Revenue Division, Commune of Dakar Plateau
  c. Mr Abdoulaye Sylla, Head of Studies and Urban Planning Division, Urban Development Department (TBC)
Johannesburg:
  a. Ms Liana Strydom: Assistant Director of Regional Planning, Development Planning Department
  b. Mr Zain Ally: Assistant Director of Land Use Planning, Development Planning Department

GPSC delegates are encouraged to have an active participation of the two-day forum, including the morning plenary and the breakout sessions from Day 1 and Day 2 of the Forum. This will increase the opportunity of GPSC cities to network with other African cities and institutions in the region.

Please see below a proposed schedule for the GPSC city delegates:

<table>
<thead>
<tr>
<th>GPSC DELEGATES SCHEDULE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12 June</strong></td>
</tr>
<tr>
<td>9:30 – 13:00: Financing Sustainable African Cities Forum</td>
</tr>
<tr>
<td>13:00 – 14:30: <strong>Working lunch GPSC only:</strong> Integrated Planning in an African Context</td>
</tr>
<tr>
<td>14:30 – 17:00: Workshop Streams:</td>
</tr>
<tr>
<td>Stream 1: Clean Transport Finance</td>
</tr>
<tr>
<td>Stream 2: Clean Energy Finance</td>
</tr>
<tr>
<td>Stream 3: Adaptation Finance</td>
</tr>
<tr>
<td><strong>13 June</strong></td>
</tr>
<tr>
<td>9:00 – 15:00: Workshops Streams (continuation)</td>
</tr>
<tr>
<td>Stream 1: Clean Transport Finance</td>
</tr>
<tr>
<td>Stream 2: Clean Energy Finance</td>
</tr>
<tr>
<td>Stream 3: Adaptation Finance</td>
</tr>
<tr>
<td>15:00: End of Sustainable African Cities Forum</td>
</tr>
</tbody>
</table>

FORUM PLENARY:

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00 – 09:00</td>
<td>Registration &amp; Networking</td>
</tr>
<tr>
<td>09:00 – 09:10</td>
<td>Opening: C40 Financing Sustainable African Cities Forum 2019</td>
</tr>
<tr>
<td>09:10 – 09:50</td>
<td>Opening Keynote: City of Johannesburg</td>
</tr>
<tr>
<td>09:50 – 10:40</td>
<td>Panel: Multi-Stakeholder Collaborations to Unlock Finance</td>
</tr>
<tr>
<td></td>
<td>Successful financing of urban sustainable infrastructure projects requires collaboration between multiple stakeholders from inception to implementation. This panel will discuss how these parties can best work together to accelerate climate action in African cities, whilst ensuring projects are successful and support the long-term prosperity of the city:</td>
</tr>
<tr>
<td></td>
<td>• What are the challenges cities and investors face in collaborating towards sustainable infrastructure?</td>
</tr>
<tr>
<td></td>
<td>• Which good examples should different stakeholders follow to optimise project preparation and financing?</td>
</tr>
<tr>
<td></td>
<td>• How can cities and investors work together to reach scale and reduce transaction costs to make projects viable?</td>
</tr>
<tr>
<td>10:40 – 11:10</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:10 – 12:00</td>
<td>Panel: Financing Resilient and Inclusive African Cities</td>
</tr>
<tr>
<td></td>
<td>Whilst cities around the world are taking action to reduce their vulnerability to the effects of climate change, adaptation projects bring with them their own unique financing challenges. Panellists will focus on how cities in Africa are approaching these challenges including:</td>
</tr>
<tr>
<td></td>
<td>• How can mainstreaming adaptation into policy and business models benefit cities?</td>
</tr>
<tr>
<td></td>
<td>• How can investing in sustainable infrastructure support parallel goals such as job creation and poverty alleviation?</td>
</tr>
<tr>
<td></td>
<td>• What financing tools are available to African cities for financing adaptation infrastructure? What are the challenges in accessing finance for these projects?</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 12:00 – 12:50 | **Panel: Investing Long-Term, Acting Now: The Potential of Investing in African Cities**  
This session will showcase the pioneering work being done in C40 Cities in Africa. By creating a pipeline of greener infrastructure projects, mayors in the region are steering the narrative, demonstrating African cities are exciting opportunities for investment in their own right. This panel will:  
- Showcase success stories from cities in the region.  
- Discuss how the actions being taken now are securing climate-safe African cities of the future.  
- Highlight the investment opportunities and technologies that city leaders see as the next step for their city. |
| 12:50 – 13:00 | **Closing Keynote – C40 Africa Chair & Vice Chair**                      |
| 13:00 – 14:30 | **Main Forum Networking Lunch**                                          |
|              | **GPSC Working Lunch – Invite Only (contact driano@c40.org for information)** |
|              | **Private VIP lunch for Mayors, Deputy/Vice Mayors & Speakers – Invite Only** |

**SPEAKERS INCLUDE:**

- Executive Mayor Herman Mashaba - City of Johannesburg
- Mayor Mohammed Adjei Sowah - City of Accra
- Mayor Zandile Gumede - eThekwini Municipality (Durban)
- Executive Mayor, Cllr Steven Mokgalapa - City of Tshwane
- Val Smith - Managing Director and Global Head of Corporate Sustainability, Citi
- Kobie Brand - CEO and Regional Director, ICLEI Africa
- Jerrod Moodley - Transactor at Rand Merchant Bank focusing on Inclusive Growth, Chairman of the RMB CSI Fund
- Minister Veska Kangogo - County Executive Committee Member, Environment and Natural Resources, City of Nairobi
- Judy Nkosi - Director of Local Government Financial Policy at the National Treasury of South Africa
- MMC Nico De Jager - City of Johannesburg
- Dr Krish Kumar - Chief Financial Officer of the eThekwini Municipality
- Umar Banda - Chief Financial Officer of the City of Tshwane
- James Alexander - Director, City Finance Programme, C40 Cities Climate Leadership Group
**PARALLEL WORKSHOP STREAMS (12 JUNE):**

**STREAM 1 - Financing Clean Transportation (room: ilanga 1)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:30-15:30</td>
<td>City Introductions &amp; Context Setting</td>
</tr>
<tr>
<td></td>
<td><em>C40 will give an overview of the agenda for the remaining sessions. Each city will then give a brief introduction to their context, goals and challenges. The group will then discuss what the objectives of the workstream will be.</em></td>
</tr>
<tr>
<td>15:30-15:45</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:45-16:45</td>
<td>Overview of Technology and Benefits</td>
</tr>
<tr>
<td></td>
<td><em>An introduction of the different clean bus technologies available on the market and the opportunities they offer. We will also discuss the role of mass transit in improving local air quality, along with other socio-economic benefits.</em></td>
</tr>
<tr>
<td></td>
<td><em>Mike Weston, Former Director of Buses, Transport for London</em></td>
</tr>
<tr>
<td></td>
<td><em>C40 Benefits &amp; Research team</em></td>
</tr>
</tbody>
</table>

**STREAM 2 - Financing Clean Energy (room: ilanga 2)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:30-15:30</td>
<td>City Introductions &amp; Context Setting</td>
</tr>
<tr>
<td></td>
<td><em>C40 will give an overview of the agenda for the remaining sessions. Each city will then give a brief introduction to their context, goals and challenges. The group will then discuss what the objectives of the workstream will be.</em></td>
</tr>
<tr>
<td>15:30-15:45</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:45-16:45</td>
<td>Solar Incentives &amp; Strategic Energy Policy for African Cities</td>
</tr>
<tr>
<td></td>
<td><em>This session will explore the role cities can play in defining their future energy profile. What are the main considerations, co-benefits, business models and policy limitations that cities motivate or limit city leaders and officials?</em></td>
</tr>
<tr>
<td></td>
<td><em>SOLA Future Energy</em></td>
</tr>
<tr>
<td></td>
<td><em>Louise Scholtz, WWF South Africa (TBC)</em></td>
</tr>
</tbody>
</table>

**STREAM 3 – Adaptation Finance (room: Nina 1)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:30-15:30</td>
<td>City Introductions &amp; Context Setting</td>
</tr>
<tr>
<td></td>
<td><em>C40 will give an overview of the agenda for the remaining sessions. Each city will then give a brief introduction to their context, goals and challenges. The group will then discuss what the objectives of the workstream will be.</em></td>
</tr>
<tr>
<td>15:30-15:45</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:45-16:45</td>
<td>Adaptation Finance and the Public Sector</td>
</tr>
<tr>
<td></td>
<td><em>Considering that adaptation is still viewed as a public good, the role of public actors is essential. This session aims to provide an overview of the elements of the adaptation finance architecture that need to be created or enabled by cities.</em></td>
</tr>
<tr>
<td></td>
<td><em>Ms. Faith Nkohla – Department of Environmental Affairs (TBC)</em></td>
</tr>
</tbody>
</table>
Following the end of day 1 of workshops, city officials are invited to attend a VIP dinner hosted by the City of Johannesburg at the Johannesburg Theatre. Transportation to the dinner will leave the Hyatt between 17:00 and 17:15.

PARALLEL WORKSHOP STREAMS (13 JUNE):

<table>
<thead>
<tr>
<th>TIME</th>
<th>SESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00 - 00:30</td>
<td>Recap of Day 1</td>
</tr>
</tbody>
</table>
| 09:00 - 10:30 | A Lenders Perspective  
Development banks will present relevant case studies and explain how cities can better develop projects to attract investors.  
Speakers include DBSA and EIB. |
| 10:30 - 11:00 | Coffee Break                                                          |
| 11:00 - 12:30 | Solutions for Mass Transit  
This session will discuss BRT as a mass transit solution and the case for a central governing body. The City of Johannesburg will present the case study of the Rea Vaya BRT project. Mike Weston, former Head of Buses at Transport for London, will describe how a centralized governing body can be created to oversee public transportation in a region. |
| 12:30 - 13:30 | Lunch                                                                  |
| 13:30 - 15:00 | Action Planning & Wrap-Up  
C40 will facilitate a wrap-up session to draw together the key themes discussed and create a Finance Action Plan for each city. |

<table>
<thead>
<tr>
<th>TIME</th>
<th>SESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 - 09:30</td>
<td>Recap of Day 1</td>
</tr>
</tbody>
</table>
| 09:30 - 10:30 | Inclusive Clean Energy: Social Upliftment & Informality  
How can a city’s central climate action plan support social upliftment and sustainable development of informal communities through clean energy infrastructure? This session will address the challenges that cities face in answering this question. Through exploring safeguarding of energy infrastructure and community engagement, delegates will also discuss how these approaches can improve bankability of clean energy projects.  
Graham Minnar – Amahlo Consulting  
Representative from Slum Dwellers International (TBC) |
10:30 - 11:00  Coffee Break

11:00 - 12:30  Case Studies Deep Dive
In this session we will hear a selection of clean energy case studies from across African cities. Cities will have the opportunities to take a deep dive into these projects with plenty of time for asking questions and analyzing transferable elements.

Julien Naidee – City of Cape Town
Rebecca Cameron – ICLEI Africa
Abe Cambridge, SunExchange

12:30 - 13:30  Lunch

13:30 - 15:00  Action Planning & Wrap-Up
C40 will facilitate a wrap-up session to draw together the key themes discussed and create a Finance Action Plan for each city.

STREAM 3 – Adaptation Finance
Room: Ballroom 3

09:00 - 09:30  Recap of Day 1

09:30 – 10:30  Green Bonds & Adaptation
Despite the rapid growth of the green bond market in both emerging and developed economies, the integration of adaptation within these debt products continues to lag. The session aims to provide an overview of green bonds in the African context and the ways in which they can be mainstreamed for resilience and adaptation.

Sinovuyo Mpakama – City of Johannesburg
Daniel Sullivan - City of Cape
Kamlesh Pillay – C40 Cities
Carl Bernač – AFD

10:30 - 11:00  Coffee Break

11:00 - 12:30  Adaptation Finance Masterclass
This session is focused on adaptation finance solution development where C40 will take participants through the process of how adaptation investments can be conceptualized and the associated steps to financing. The session will include break out groups with tasks provided accordingly based on specific adaptation investments.

12:30 - 13:30  Lunch

13:30 - 15:00  Action Planning & Wrap-Up
C40 will facilitate a wrap-up session to draw together the key themes discussed and create a Finance Action Plan for each city.