INFRASTRUCTURE *Dialogues*

Financing Government's Capital Programme

Toward sustainable municipal financing for the future

15 March 2016

1. Introduction

The imperative to unlock the key enablers of sustainable metro development

Financing of Capital Programmes within metropolitan government was the focus of the discussion at the 37th Infrastructure Dialogue. A panel which represented the National Treasury, Development Bank of Southern Africa (DBSA), and the City of Tshwane shared experiences and perspectives surrounding new ways of developing successful, viable and sustainable financial models that pertain to this sphere of governance.

What came to the fore was that cities can no longer apply the same financing approach and expect to reach the magnitude and speed of developmental change that is required. In a context of rapid urbanisation and fast paced technological change, new financing solutions are required to address public finance challenges. The development of progressive cities with inclusive growth calls for good administration combined with innovation. This implies not only generating more money, but also prioritising the right developments plus ensuring improved implementation and productivity while using innovative financing instruments.

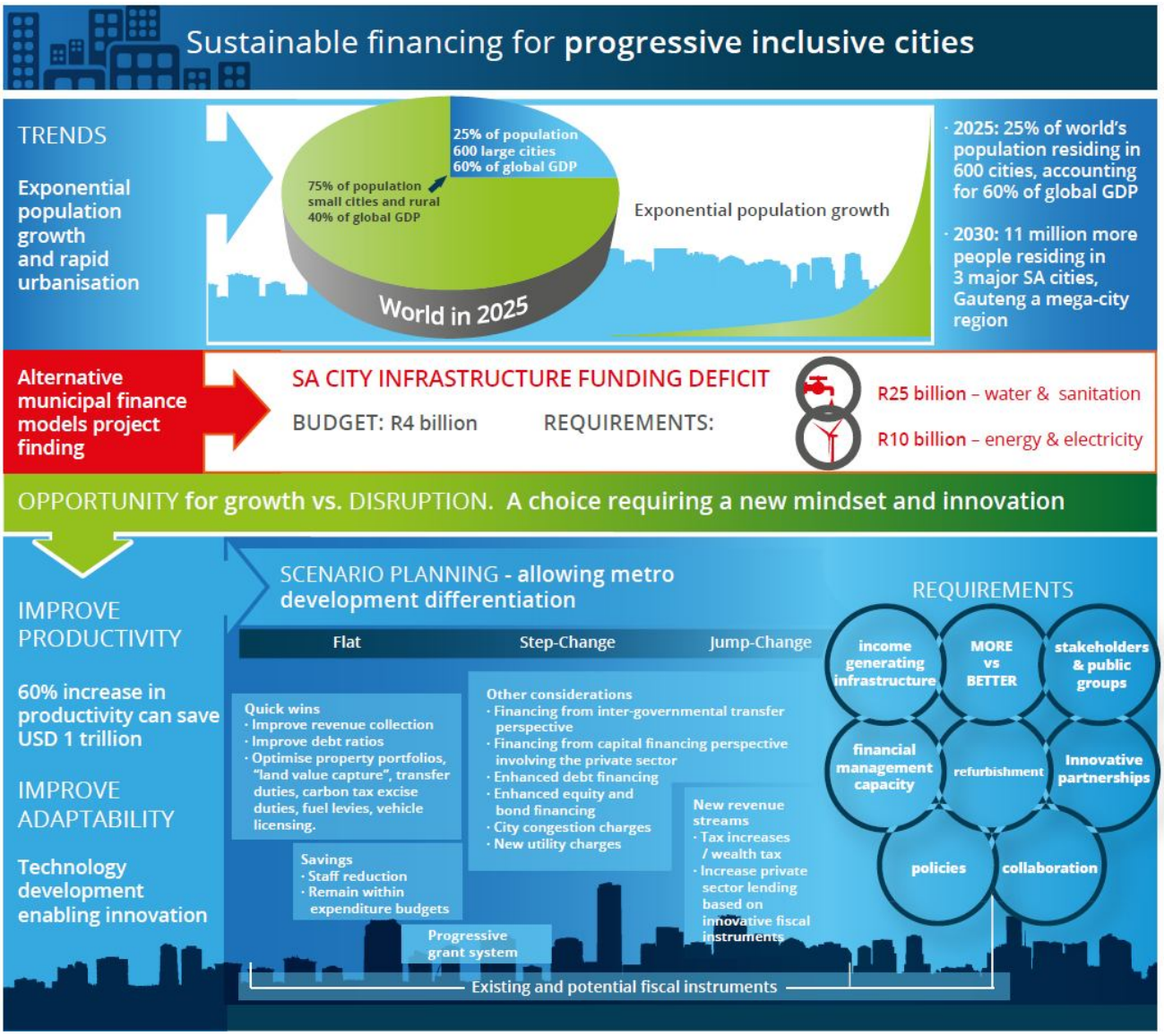
Participants observed through this Dialogue that there is much to consider in a positive light in the changes cities are experiencing resulting from urbanisation, amongst others. What emerged strongly was the importance of turnkey solutions with long-term impact, and while the conversations may have included discussion on challenges, they presented key considerations for sustainable financing solutions.

Gillian Hutchings of the National Business Initiative (NBI) welcomed the audience and invited everyone to participate freely by way of debate, sharing opinions and providing feedback. **Richard Goode** of the Development Bank of Southern Africa (DBSA) facilitated the Dialogue, after introducing the following panel members:

Mr. Tshepo Ntsimane	General Manager, South African Financing Division, Development Bank of Southern Africa
Ms. Shaakira Karolia	Chief Economist, City of Tshwane & Economic Advisor to the Executive Mayor of Tshwane
Ms. Wendy Fanoe	Chief Director: Intergovernmental Policy and Planning in the Branch Intergovernmental Relations of National Treasury

The Infrastructure Dialogues are hosted jointly by the Development Bank of Southern Africa, the South African Cities Network, the National Business Initiative, the Performance Monitoring and Evaluation Department in the Presidency, and the Department of Economic Development, with the Engineering News as media partner.

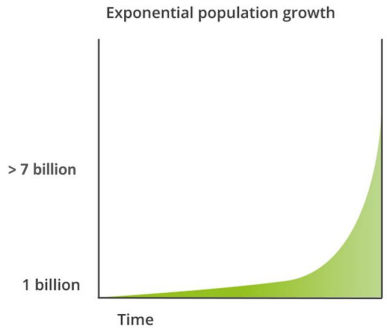
2. Overview



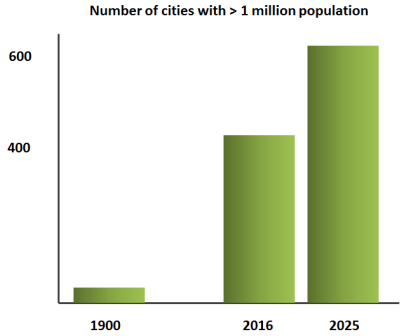
3. Context

The backdrop of the impact of population growth and urbanisation

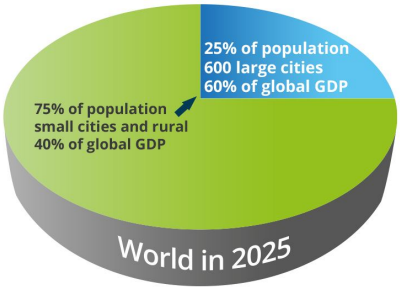
The Dialogue began by zooming out, to assess the context in which metros need to address the development of infrastructure. It was noted that in looking at financing capital infrastructure in a viable way, especially for cities and metros, it is imperative to take into account the trends that drive the increasing demand for change and development. Future sustainability requires a comprehensive and holistic approach, ensuring that the scope of need is accurately understood.



An exponential rise in the world's population, which reached the 1 billion mark over a period of 300,000 years, forms the starting point for the context. Of late, two billion people were born in just 12 years. Consider that by 2025, 25% of the world's population will reside in 600 large cities, which will account for 60% of global GDP, with further urbanisation taking place. Consider too that new developing cities in China are forecasted to reach a GDP that is similar in size to the economies of certain countries.



Not only is the global population increasing at an exponential rate but in Africa and Asia, the tipping point in urbanisation (more people living in mega-cities than in rural areas) is expected to be reached in 2023 and 2030 respectively. By 2030 in South Africa it is foreseen that Gauteng will be a mega-city region, and 11 million more people will reside in the country's three major cities, namely Gauteng, Cape Town and Durban.



FUNDING DEFICIT

There is an estimated USD 57 trillion deficit in infrastructure spend globally that is being exacerbated by major challenges, e.g. 70% of water in Nigeria is non-revenue water. In South Africa, the City of Tshwane has a R29 billion budget of which R4 billion is allocated to capital expenditure. Putting this figure into perspective: up to R25 billion and R10 billion are required to replace aging infrastructure in the areas of water and sanitation and energy and electricity respectively. The current need far outweighs what can be achieved with current resources, begging the question as to how can we significantly enhance and fast track economic growth.

4. Mindset

Opportunities for growth vs. considering change disruptive

Having put forward the statistics showcasing the extent to which population growth and continued urbanisation is increasing the consumer base in cities, the Dialogue called for productivity. It was noted that on a global level if there is a 60% improvement in productivity, savings of more than USD 1 trillion can be generated over a relative short period of time. Productivity undoubtedly has a direct bearing on GDP and so does demographics, noting the youth bulge of Africa's population. Six out of ten Africans are under 24 years of age so as the continent's population grows by a further 1.3 billion to 2050 it will have a large, young workforce. Dynamics of this nature will impact the future productivity of our continent and country.

It was emphasised that there should be a direct correlation between the amount of services required, i.e. water, energy and basic service delivery and income meeting the need. This requires a change in mindset. Although the increasing demand in service delivery presents us with a significant challenge, it also holds the opportunity for the generation of additional income for metros. If the income is not generated, real change cannot be effected and Government will be unable to deal with the growing demand. This will cause social disruption.

Further to this, the pace at which technology continues to change requires that we adapt quickly. It took 115 years from the development of the first phone call to the first website while development from the first website to the first iPhone took just 16 years. To enable future sustainability, it is critical that we keep up with technological developments that hold the opportunity for further innovation. This will provide the capability to serve citizens better and faster. With South Africa already lagging behind, if our cities are unable to adapt quickly, this also could lead to disruption.

Looking at the potential opportunities, or worst case scenarios of major disruptions, the most important mitigating factor is productivity enhancement. It was said that this is the responsibility of Government at all levels, as well as the private sector and it should be pursued in partnership. Urbanisation's biggest demand is on governments and how they work, interact and network. From this perspective and with the objective of future sustainability, the development of solutions (not only financial but also operational) needs to take into account the impact on long-term economic growth, as well as the potential outcomes for all stakeholders and communities involved.

5. Solutions

A focus on scenario sketching by the City of Tshwane and fiscal instruments

5.1 Scenario planning

Following a holistic approach to identify and develop new, innovative and appropriate financing solutions, it is pertinent that all stakeholders work together to assess requirements, develop and

determine the potential impact and outcomes of financing solutions. The City of Tshwane, for example developed a conceptual financing framework based on three scenarios that incorporate fiscal principles and instruments with the potential to work in practice. The three scenarios advocate differentiation from a metro perspective and endeavour to address governance implications, with the goal to optimise revenue collection mechanisms.

"Models of governance that adopt an outward and forward looking approach, with cognisance of the external environment and potential future scenarios, achieve the highest success and are an urgent requirement in our South African context."
Shaakira Karolia, City of Tshwane

Scenario 1: Flat Scenario
The flat scenario addresses minimal change in terms of existing financing practices. The focus is on the improvement of implementation and usage of existing financial instruments, to increase income and ensure effective application of funds.

Scenario 2: Step-Change Scenario
The step-change scenario promotes legislative change, especially in terms of allowing differentiation yet it does not imply constitutional change. The scenario involves cross-cutting fiscal disciplines that are implemented across governmental spheres. It aims to increase efficiency, enhance the standard of service delivery (both revenue generating and expenditure), and improve capacity at municipal and local government level to deal effectively with increasing demand.

Scenario 3: Jump-Change Scenario
The jump-change scenario involves a constitutional element and the devolution of taxation powers to cities. It includes new forms of taxation such as surcharges and wealth tax, and is termed jump-change as it comes with its own set of challenges and implications. The scenario includes a city region component, which implies that a region such as Gauteng will be given greater autonomy to allow self-governance in the execution of functions at Local Government level. Greater autonomy in this governmental sphere should fast-track processes. Solutions developed under this scenario require stakeholder participation, careful assessment and outcome based decision-making to ensure long-term sustainability.

5.2 Fiscal instruments

The City of Tshwane assessed decentralised mechanisms at administrative and financial levels across the globe. It found that comparatively, South Africa is the least decentralised in terms of financing while the opposite is true for administration. This discrepancy in how the country is managed administratively versus financially has a significant impact on implementation and execution efficiency. For example since the establishment of democratic local governments, the demand for services and subsequent mandate for this governmental sphere has increased dramatically – up to 43% from that originally intended. Yet local governments still receive only 9% of revenue collected by the

fiscus. Taxation principles and the sharing of revenue has its own set of challenges but given the impact thereof on available financing, it needs immediate attention.

5.2.1 Securing the quick wins

There are significant opportunities to improve the revenue generation capacity of metropolitan municipalities without adding to consumers' financial burdens, namely:

- Improvement of revenue collection
- Improvement and management of debt ratios
- Optimisation of property portfolios, "land value capture" and land-based financing, property transfer duties and excise duties in terms of carbon tax, fuel levies from municipal roads and vehicle licensing as well as other fees and charges levied

It was noted that municipalities need to be substantially more innovative in addressing revenue collection.

REVENUE COLLECTION COMPARISON

During the past five (5) years, the City of Johannesburg improved its revenue collection significantly. At present, the metro can fund 31% of infrastructure projects comparing to only 5% previously. Comparatively, the City of Tshwane funds less than 10% of infrastructure from own revenue. Certainly it must be considered that the city was merged with a number of poor municipalities with citizens unable to pay for services, but the question needs to be asked: "Is the level of affordability the only difference? Or are there significant ways in which the City of Tshwane can improve on its revenue collection?"

In response to this question, information related to a pilot project undertaken by the City of Tshwane involving the middle class parts of Mamelodi was shared. The project comprises a vehicle with a camera that is linked to an central information system. Through capturing images of a house or facility, information regarding payment of rates and taxes is obtained. In case of non-payment, water and electricity supplies can be cut until all outstanding payments are made. Rolling out this pilot project to other areas, a substantial amount of money is required however the City of Tshwane estimates that at least an additional R3 billion can be secured through obtaining outstanding rates and taxes.

Currently people choose not to pay as they can get away with it, but by enforcing payment through the usage of available tools and technology, the revenue stream can be greatly increased. It was said that it is critical that a culture of payment is established, especially where people can afford to pay.

5.2.2 More flexible grant system

The South African grant system is a critical financing instrument undergoing re-evaluation. Reforms are moving in the direction of replacing a multiple sector grant system with a consolidated grant system with different types of conditions that can also promote integrated planning. Within a more flexible framework, the available funds through the grant system can be allocated and managed more effectively. It is important that there is a balance between funding from grants and revenue collection. The equitable share, which focuses more on rural municipalities that struggle with revenue collection, helps balance the flow of grants between rural and urban municipalities.

5.2.3 Creating new revenue streams

The Dialogue highlighted a number of new ways in which revenue can be increased, as well as existing financing mechanisms that need to be improved. Two considerations are tax increases and increased private sector lending based on new and innovative fiscal instruments.

Tax increases/wealth tax: Tax increases are unavoidable but for this to be workable, stakeholders and public groups must come together through debate and develop solutions. There are two issues with tax increases, 1) people might avoid certain services or find ways to circumvent tax increases, 2) the inherent culture of non-payment. In practice there will be a significant impact of increased taxes on certain sub-groups in groups of people affected by additional taxes. It is pertinent to consider the full impact and determine how disparities should be managed.

Increased private sector lending based on new and innovative fiscal instruments: Metros should exploit their economic base and develop innovative financing instruments (independent from lending on balance sheet), that will be attractive to the private sector. Project funding and project bond financing should be investigated for opportunities. Traditional barriers that prevented the private sector from involvement in certain sectors, such as the delivery of water and sanitation, should also be evaluated and removed where there is no justification for such barriers.

Further considerations that were noted include:

- City congestion charges
- New utility charges
- Financing from an inter-governmental transfer perspective
- Financing from a capital financing perspective that involves the private sector as well as municipal funding agencies, pension and insurance funds
- Enhanced debt financing
- Enhanced equity and bond financing

Under what conditions are citizens willing to pay more tax?

Where the public are involved in the process and have a clear understanding of the reasons behind new fiscal instruments and additional taxes, they are more likely to buy into the idea. Citizens need to be confident that the best solutions are in place and that money will be invested properly. In this regard transparency is critical and projects should demonstrate achievements.

5.2.4 Reduction of staff

In the quest to increase available funds, municipal expenditure needs to be assessed including the identification of where savings can be unlocked. The reduction of staff was stated as one savings enabler, with it being possible to reallocate this funding to infrastructure financing. Since October 2015 significant expenditure cuts in terms of the removal of non-core staff have been put in place, especially at National and Provincial Government levels. Savings are currently being allocated to small businesses to protect economic growth, monitoring capacity and higher education.

6. Requirements

Overcoming challenges through measures for fiscal prudence

Project: ALTERNATIVE MUNICIPAL FINANCE MODELS PROJECT (AMFM)

Partners: City of Tshwane, SA Cities Network (SACN)

Description: The project harnessed a multi-disciplinary panel of experts to address the gap between fiscal capacity and fiscal specifications of Local Government. The goal was to reduce tension, in order to meet developmental priorities within South Africa. The case for change was based on current fiscal, legislative and policy constraints that are prevalent in the country, amidst the changing global environment, while considering economic potential of cities and infrastructure investment requirements. It was found that the South African fiscal framework is insufficient and unsustainable, given macro and external patterns and trends.

Driven by the objective to create inclusivity and future sustainability, it is critical to understand the foundation and requirements needed to overcome challenges. The Dialogue highlighted a number of aspects that developers of metro infrastructure should take into account. It was agreed that these issues require further debate, with the focus needing to be on sharing in-depth knowledge and understanding.

6.1 Income generating infrastructure

One of the fundamental requirements to strengthen the South African fiscal framework is the adoption of a new approach, through which infrastructure generates income. It is imperative for metros to rethink the *status quo*, and equally important to create incentives for metros to think and act differently.

"How can we incentivise metros to think in a new way – to look at innovative financing options – moving away from grants and traditional revenue income? How can we configure such an incentive structure?"

In recent years, the struggle to finance infrastructure has become an issue of "more", i.e. more money, more revenue, more tax, and more infrastructure. While more funding must be generated, the emphasis also needs to be on "better". It has to become specific to infrastructure development within metros, and the creation of inclusive cities in which "better" is central to new development and refurbishment.

Inclusivity goes hand in hand with sustainability. The main question should be, "what is economically viable or how much will it cost and how much revenue can be generated?

The income generating capacity of infrastructure should form part of the planning process and needs to influence decision-making. With limited funding, infrastructure with greater capacity for inclusivity should be favoured. For example, rather than upgrading motor highways that remain in relatively good condition, funding should support the development or improvement of economic hubs that will be sustainable through having the capacity to generate significant income for years to come.

TRAM VS. BRT

The city of Chicago needed to choose between the development of a transport system via TRAM or BRT (Bus Rapid Transport). Establishing a TRAM transport system entailed more development than that for BRT. However looking at the long-term and indirect benefits to the community and surrounding areas, the TRAM was chosen. It is important to determine and quantify, where possible, these long-term benefits to secure the decision that fosters inclusivity and sustainability.

Being able to quantify not only return on investment but also potential future income, will help to attract private investment. Financial planning capacity to determine the economic and social impact of infrastructure is the biggest challenge for metros. Further, the majority of infrastructure borrowing in municipalities is not generating revenue. Apart from the ability to pay back borrowed funds, the DBSA focuses on sustainability. When infrastructure generates revenue over its lifecycle, such as that of energy, water and sanitation, the metro's fiscal capacity is developed.

LOCAL GOVERNMENT FUNDING

More than 35% of DBSA funds are loaned to municipalities, with approximately 75% being allocated to metros. Of the total amount, only 5% of loans are non-performing, which is telling of the credit quality of municipalities and the level of payback responsibility. This however does not imply that there are no challenges in this area, let alone a number of poor municipalities that are unable to apply for and pay back credit.

Through this Dialogue it was shared that the City of Tshwane is engaged with a private sector led development valued at R44 billion, which will create a new national arterial that will link up with existing roads. The project will yield significant benefits for the city, the city's people and those in surrounding areas. A financial model that involved private sector funding needed to be developed but because the metro has limited capacity on this front, a consultant company was appointed. The resulting proposal covered all financial and legal aspects, but the city does not have the capacity to assess and understand the risks involved in its totality.

"Are cities the best institutions to provide or resell basic services including electricity, water and sanitation? Should the private sector not be given an opportunity to become part of this solution?"

Future sustainability as well as the right mix of financing solutions cannot be separated from economic growth. Job creation should be the first priority. The South African population should be economically active and able to pay for services used. In the optimisation of existing solutions as well as the development of new financial instruments, the transfer of funds or the provision of grants should not be the first consideration. Once again, it was emphasised that building sustainable revenue is critical but metros cannot rely on the sale of electricity and basic services alone. Cities should become more entrepreneurial and not only be resellers of services.

6.2 Private sector funding partnership

The conversation took a turn to the consideration of private sector partnership. In pursuing this funding option, e.g. borrowing money from the private sector or potential investors such as pension and insurance funds, economic drivers include return on investment and acceptable risk. Financing options should emphasise the protection of investment and need to define the payback requirements from the metro or municipality.

INNOVATIVE PARTNERSHIPS

How do we create sustainable partnerships where all involved contribute in a significant way?

The funding gap for metros is estimated at about R50 billion, with current spend being in the region of R28 billion. Metros request in the region of R43 billion annually from National Treasury, which leaves a significant gap that can be filled through innovative partnerships with state investment institutions such as the DBSA, as well as the private sector.

From a development perspective, a lender cannot take the same approach as in a commercial case, however a return on investment is necessary to make any project work. It is important to determine the credit ability of the borrower and determine the risk associated with such investment. Where risk is uncertain, especially with regards to construction, it is necessary to investigate scenarios and involve potential investors in discussion to lessen unnecessary fears and risk averseness.

"Risk is one of the biggest challenges in securing private investment. For project funding to work, projects need to be bankable. It is here where the DBSA and other private consulting companies can play a significant role in the preparation of projects to ensure bankability and understanding of the risk involved. In reality the preparation of projects takes a long time and it also has a cost element to it - this should be factored in." Tshepo Ntsimane, DBSA

RENEWABLE ENERGY – PRIVATE INVESTMENT SUCCESS STORY

The DBSA facilitated the Renewable Energy Programme which was highlighting as an excellent example of innovative partnership and project preparation. The project, funded by the private sector, required cooperation between National Treasury and the Department of Energy. The key to its success was the effort and time spent by the DBSA to ensure comprehensive preparation that included a demonstration of the financial feasibility and bankability of the project. After extensive work, the industry was prepared and a successful renewable energy sector was established.

6.3 Applying policies and guidelines

In terms of the development of new financing mechanisms, there is a need for dedicated policies and processes to support partnerships and assist role players to deal with the transitions that we seek to embark upon. Local Government is where we need to build capacity and equip metros to influence the private sector and citizens to participate in working towards the goals of inclusivity.

When it comes to development and value-add service, metros have the freedom to choose and implement new technologies. Through this, metros become progressive and citizens become positively inclined towards development. However, at present there are no guidelines to assist metros, for example with regards to new technology to ensure cost-effective implementation. Policies should also promote alignment and cooperation between metros and provinces to effect significant savings.

6.4 Collaborative planning and integration

With initiatives such as the Built Environment Performance Plan (BEPP), government promotes the planning and cooperation of infrastructure development and management. Interaction, cooperation and alignment between departments and across levels of government from the outset of any project is key to the development of effective infrastructure, proper allocation of funds as well as cost-saving.

While in some cases integration is successfully achieved, there are problems in other situations that prevent collaboration. These problems include a lack of capacity, lack of innovation and finding the right balance between fit-for-purpose, and the tailoring of adopted structures.

In addition to creating alignment across services sectors, it is also critical to ensure collaboration in the planning process between engineers, technical and financial staff. Technical know-how and an in-

depth understanding of the practicalities of infrastructure planned are vital to development. While plans can be ambitious, they should always be practical and feasible. It was put forward that investment or funds should only be made available once all departments, including planners, engineers and financial decision-makers are aligned.

"With the focus on inclusivity and livable cities, development needs to be holistic, taking into account all public services requirements. Integrated infrastructure development (including spatial development and connectivity through transport) will allow good living conditions, which will stimulate further economic growth. For this to take place, public sector departments within metros and local governments need to align themselves and work together in close cooperation." Wendy Fanoe, National Treasury

6.5 Involve all stakeholders and public groups

Ensuring the development of purpose-fit and sustainable solutions, the Dialogue reiterated the necessity to involve all stakeholders throughout the development process, i.e. all levels of government, National Treasury, economic institutions, trade unions as well as the private sector. In specific cases, selected public groups that could contribute in a significant way by form of information and idea generation should form part of the planning process within metros and municipalities.

6.6 Social and community assets

Social and community assets should also be factored into the holistic infrastructure development. Future access to infrastructure, cost-effectiveness and the opportunity to turn areas into economic growth nodes are important considerations. The notion that grants should be directed at social infrastructure while funds are borrowed for the development of revenue generating infrastructure was highlighted. Borrowed funds should be paid back from revenue income. Both social and economic infrastructure should complement each other to ensure sustainability.

6.7 Refurbishment and maintenance

It is widely accepted that new infrastructure is required, however in this process it is important to assess old and existing infrastructure to consider refurbishment where it is cost-effective. Proper maintenance plans should be in place to ensure that infrastructure remains effective over its lifecycle.

Conclusion

South Africa focuses too heavily on reformation as opposed to transformation, particularly as the country finds itself in the unchartered waters of creating inclusive cities. Yet the reality can be considered either opportunity or a disruptor. In order to ensure future growth and sustainability, the country needs to opt to approach the dilemma of urbanisation and the rapid increase in demand for services as an opportunity for inclusive growth.

Working in partnership with financial institutions such as the DBSA and the private sector, we need to rethink cities and metros both from a financial Capital Programme planning perspective and a service provision viewpoint. National Government, metros, local government, municipalities as well as the private sector need to come together to secure innovative funding approaches that enable infrastructure to become a 'working asset' that generates income. With a long-term view, the right focus and shared objectives, financing solutions that will support all-inclusive economic growth can be activated.

Mr. Tshepo Ntsimane

Tshepo Ntsimane is the General Manager in the South African Financing Division of the Development Bank of Southern Africa. He leads a team that lends to Metropolitan Municipalities, Water Boards and the Education sector.

Ms. Shaakira Karolia

Shaakira Karolia serves as the City of Tshwane's Chief Economist and is also Economic Advisor to the Executive Mayor of Tshwane. Prior to joining the City of Tshwane, Shaakira worked within the strategy team at the Johannesburg Stock Exchange (JSE) and she also fulfilled the role of Economic Analyst in the Office of the CEO. During this time, one of her major projects was the establishment of the BRICS stock exchange alliance. Shaakira lectured in Economics at the University of Pretoria, where she also obtained her Masters in Econometrics, cum laude. At the top of her class, Shaakira received one of the highest research accolades from the Department of Econometrics. She conducted research in monetary economics and banking, developing economics, political economy and economic history. Currently busy with her PhD, her studies are centered around the relationship between financial sector sophistication and inequality. Shaakira also serves on the Advisory Board of Indus Earth South Africa, the Agape Youth Movement and the Economies of Regions Learning Network in South Africa.

Ms. Wendy Fanoe

Wendy Fanoe is the Chief Director: Intergovernmental Policy and Planning in the Branch Intergovernmental Relations of National Treasury. She has been in management positions in government departments since October 2001 in various capacities. She has gained experience in the field of local government finance and fiscal policy by working in the National Treasury and (now called) Department of Cooperative Governance. She is also responsible for representing the interests of provinces ad local government in the national budgeting process. She also oversees the preparation of the annual Division of Revenue Bill (and amendment Bill) and assists in the processing thereof through Parliament.

Mr Richard Goode

Richard Goode is an Infrastructure Research Specialist in the Knowledge Management and Innovation unit of the DBSA. He has a Masters Degree in Economic History from the University of Cape Town. At the DBSA he is engaged in research on integrated infrastructure planning to improve the capacity for and execution of durable, economic, efficient and long term infrastructure provision and knowledge management of the results thereof. He has worked in applied economics in a wide range of sectors.

Picture Above: 37th Infrastructure Dialogue Facilitator and Speakers
From left to right: Richard Goode (DBSA), Wendy Fanoe (National Treasury), Shaakira Karolia (City of Tshwane), Tshepo Ntsimane (DBSA)

Picture Above: 37th Infrastructure Dialogue Delegates - Roundtable Discussions