

PUBLIC ENGAGEMENT IN SUSTAINABLE URBAN DEVELOPMENT:
FROM ENGAGEMENT TO CO-CREATION THROUGH A SMART CITY APPROACH,
WINDHOEK, NAMIBIA

ELLY DISNEY NAMUPA ANDREAS

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ELLY DISNEY NAMUPA ANDREAS

201158361

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MAIN SUPERVISOR:

PROF. DR. F. BECKER

CO-SUPERVISOR:

PROF. DR. M. KAUTONE

ABSTRACT

The City of Windhoek plays a unique role in the social and economic success of Namibia, as the center of international networks and where the government sits, this places a significant responsibility on national and local authorities to sustain the population.

Globally, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050 (UN, 2018). This unparalleled rate of urban growth is creating an urgency to find smarter ways to manage the influxes of urban populations and public participation processes are considered and proven to be an important element for enabling successful sustainable development in a smart city concept because they involve actively engaging the civil society (Brand et al. 2013).

This research study identifies current engagement tools used by the City of Windhoek (CoW) and evaluates how they are implemented in practice. Through semi-structured interview sessions and participatory observations at identified public engagement meetings, findings prove that traditional engagement mechanisms, such as public meetings, are still commonly used by the City of Windhoek. City planners are developing their engagement toolbox in order to strengthen public participation, and in turn, reach an audience that reflects and represents the contributions made by the population in urban sustainable development plans.

The extent to which engagement tools are resulting in outcomes that are inclusive and representative to the public is difficult to determine because the CoW's planning division does not require to track the participant's demographics at public meetings. Reviewing the City of Windhoek's public participation policy to include indicators such as participants' gender, age, and attendance register to name a few would be a step in the right direction to maintain the new vision- "*A Smart and Caring City by 2022*".

Keywords: *Public Engagement, Participation, Smart City Concept, Urban Sustainable Development, Co-Creation*

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Thank you!

DEDICATION

This research study is a special dedication to my late friend Mr. S. Lumbu. This one's for you, my dear friend. I miss you every day and I know that you are by my side through it all. Continue to rest in power.

I also dedicate this study to my family, you guys are rockstars. My MAMA, for showing me constant support, emotionally and financially. For mentoring, moulding, and grooming me into the woman, I am today. “All that I am and hope to be, I owe it to my angel MAMA”, these words will forever be embedded into my heart and soul.

My sisters, you ladies are my rocks. You make every journey I take worth it. Your constant support and love will forever be cherished.

To my brothers, Psych!

DECLARATION

I hereby declare that this research study is my original work and has not been presented for a degree in any other university.

Signature _____

Date _____

E.D.N ANDREAS

This study has been submitted for examination with my approval as university supervisor.

Signature _____

Date _____

PROF. DR. F. BECKER

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LIST OF ABBREVIATIONS

CCP	Corporate Communications Plan
CDC	Community Development Committee
CoW	City of Windhoek
EC	European Commission
KRC	Khomas Regional Council
PCM	Public Cycle Meetings
SCC	Smart City Concept
SDG	Sustainable Development Goals
TSP	Transformational Strategic Plan
TST	Technical Strategic Team

1. INTRODUCTION

1.1 Urbanization

Urbanization is creating an urgency to find smarter ways to manage socio-economic challenges faced by the influx of people from rural to urban areas, and this has continuously led cities to become desiring goals for future urban development (Nam and Pardo, 2011). Urban spaces are developing into epicentres of economic growth. Cities seem not to have effective strategies in place that are sufficiently progressive to adapt to the inevitable population increases occurring across the globe. In countries like India and South Africa, cities have been identified and acknowledged as solutions for moving towards urban sustainability which includes knowledge cities, digital cities and eco-cities, all in light of an introductory concept such as a ‘Smart City’ (Murray, Minevich and Abdoullaev, 2011). Namibia, on the other hand, is no exception to this.

Globally, people live in urban areas more than in rural areas as indicated in the most recent statistics, 55% of the world’s population lives in urban areas, a proportion that is expected to increase to 68% by 2050 (Angel, *et al* 2012). This unparalleled rate of urban growth is resulting in an urgency to find smarter ways to manage the accompanying challenges, however, cities lack effective strategies in place that are sufficiently progressive to adapt to the inevitable population increases (Nam and Pardo, 2011). As cities continue to grow, many will be stretched beyond the capacities of their infrastructure and will suffer catastrophic consequences. Cities will inherently face challenges, which can only be resolved through a systematic approach.

Murray, Minevich, and Abdoullaev (2011) point to current waves of social unrest experienced throughout the world as a clear indication that our old institutions are inconsistent with a complex

and fast-changing world. Costly consequences, such as difficulties in waste and resource management, increased air pollution, and other concerns such as traffic congestion, and those resource systems have been developed in isolation of each other (Sustainable Cities International, 2010). Technical and physical problems such as deteriorating and outdated infrastructures within cities are aggravated by the high levels of diverse stakeholders, social and political complexity, and mutuality (Chourabi *et al*, 2012).

However, cities make an excellent platform to experiment and prototype future sustainability initiatives. Cities hold the potential to be sustainable because they are self-organizing learning systems, which allow stakeholders to learn and work with each other (Innes and Boore, 2004).

1.1.1 Urbanization in Namibia

In Namibia, the urban population was recorded at 28% after the 1991 Census, the urban population was recorded to be at 33% in 2001 and increased to 43% in 2011. Significantly, between 2001 and 2011, the urban population grew by a staggering 49.7%, and the rural population shrank by 1.4% and this demonstrates the high rate of rural-to-urban migration. The urban population is projected to increase by 0.7% in 2016. Urbanization in Namibia like most other developing nations is a consequence of the push of the rural areas and the pull of the town. The urban population is affected by dynamics in internal migration, while rural poverty causes people to migrate to the city to improve their livelihoods (NSA, 2015).

The capital city, Windhoek, has by far been the major focus of urbanization. Its population increased from 13.7% in 2001 to 16.2% in 2011 and constitutes 36% of the total urban population. The proportion of people living in urban areas rises not only due to migration but also due to the natural growth of the existing urban population. In an African context, it is reported that

urbanization rates also increase because of the reclassification of settlements from rural to urban (NSA, 2015).

A study conducted in the capital city and major towns such as Walvis Bay, Rundu, and Oshakati in Namibia indicated that the main reasons given by the majority of respondents on why people move from rural to urban areas are to seek employment (75.3%); education (57.2%) and some move because of work (50.8%). Figure 1 depicts evidence of internal migration in Namibia. There is evidence of rural-urban migration at a population growing steadily at 2% per year, overall, the population in urban areas in Namibia has steadily increased while a decrease is evident among rural populations (Indongo, 2013).

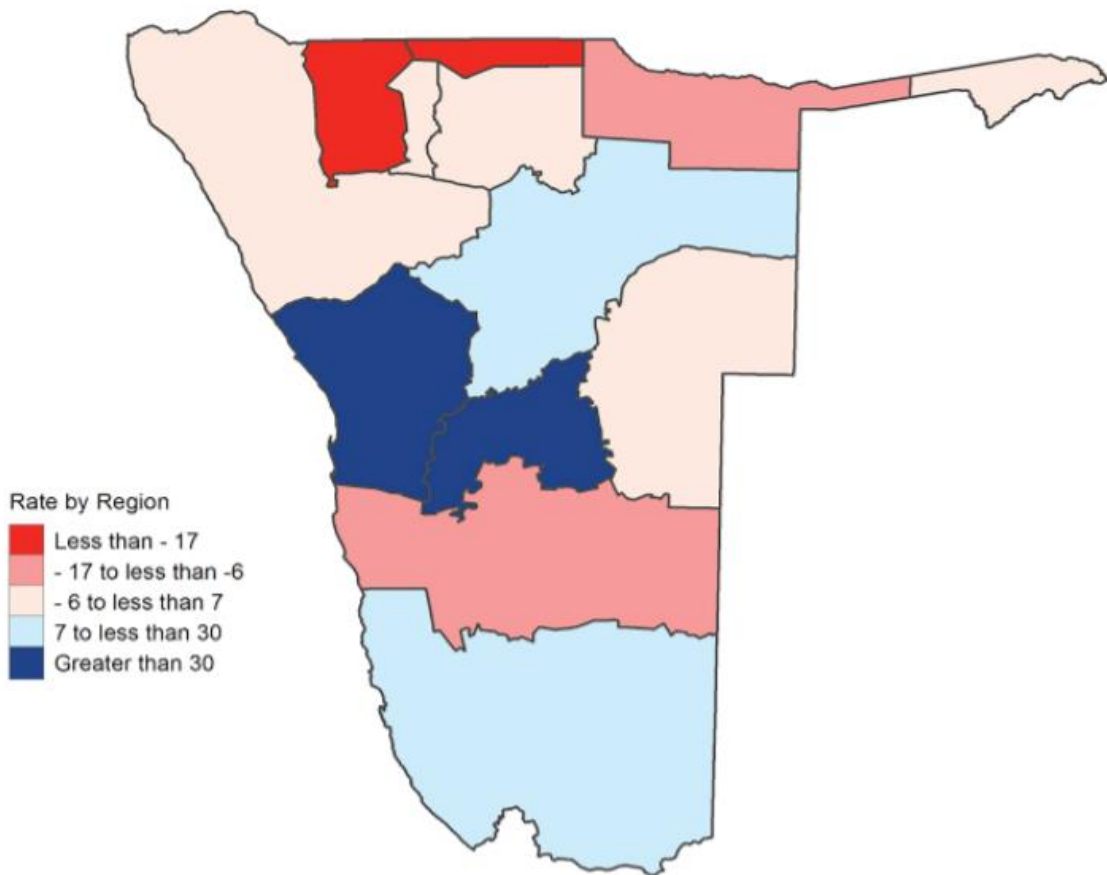


Figure 1. Lifetime Net Migration Rate (per 100 born in each area)

Source: Namibia Statistics Agency: Migration Report, 2015

In Namibia, migration patterns differ not only between regions but also between constituencies. Figure 1 shows lifetime net migration rates for both regions and constituencies. 11 regions contained constituencies showing both net gains and net losses of migrants. Erongo and Khomas have experienced high rates of in-migration, implying that the majority of residents in these regions were born elsewhere. Inequity is found among regions and within regions, produced by unequal access to productive resources as well as social services. Income disparity among regions is huge, from N\$ 11,359 for Khomas and N\$ 1,070 for Ohangwena; adult literacy is 94% in Khomas (Windhoek) and 57% in Kunene (NSA, 2015).

Housing, as an example of productive resources, is an extremely important goal for sustainable development, but the way in which houses are constructed influences the achievement of other development goals. Despite various public and private sector initiatives, the situation needs serious attention to reach Vision 2030 goals of providing affordable housing to all, and to do so in a carefully planned and sustainable manner (Hollands, 2008).

According to Amugongo (2016), Windhoek's population is posed to increase tremendously in the coming years and posed to reach 1 million inhabitants by 2040. This growing population requires a much deeper understanding of its current vision statement and the notion of a smart city and although Windhoek is not at present a smart city, it has the right conditions and well-positioned to leapfrog to transform into a smart city because of its good network coverage and ICT infrastructure. The city intends to cater to a broad range of stakeholders which ultimately serves to improve the quality of life of all residents as articulated in their mission: "to enhance the quality of life of all our people by rendering efficient and effective municipal services.". The city

advertises its strategic master plan as a management tool against which the Council is held accountable (TSP CoW, 2017).

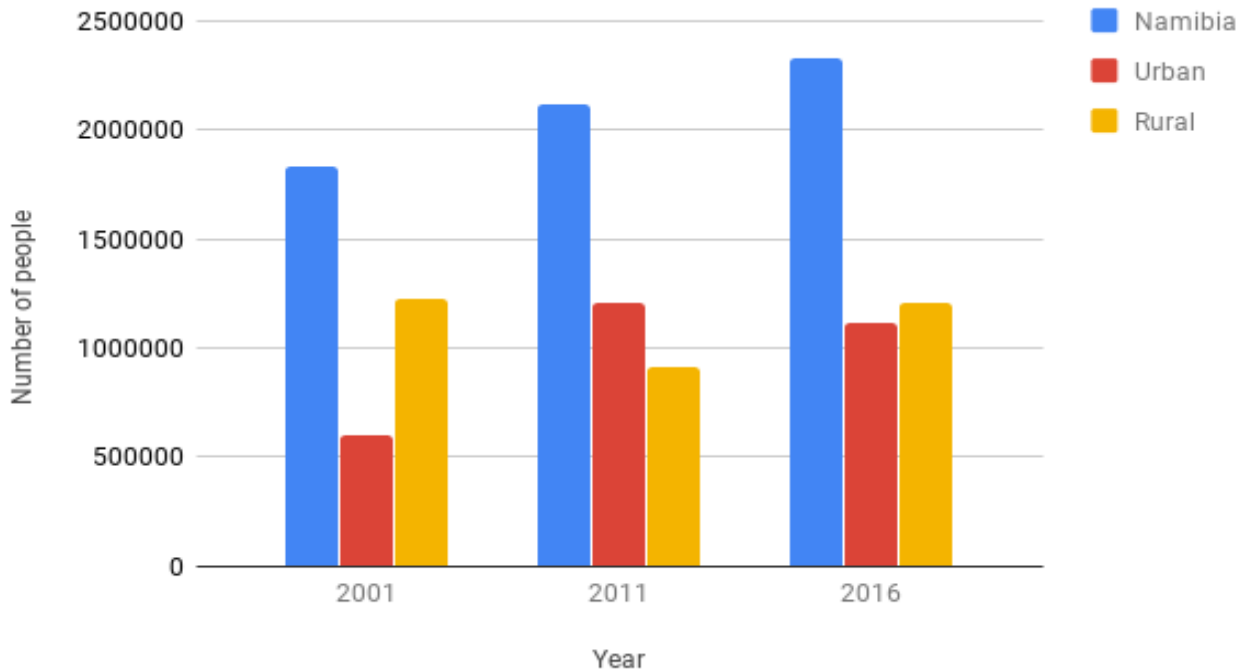


Figure 2. Population by rural and urban

Source: Namibia Statistics Agency, 2015

The City of Windhoek (CoW) is confronted with a number of key problems, like high urban densities, transport, traffic congestion, unplanned development (illegal construction; informal markets; informal settlements), lack of basic services, and peoples negative attributes (TSP CoW, 2016). As the capital city and centre of international networks. This places a significant amount of responsibility and expectation to influence in setting trends for local authorities to contribute towards nation-building and in Namibia.

The growth of Windhoek’s informal settlements has taken place through two processes: 1. Urban sprawl caused by the building of homes outside built-up areas; 2. The densification of existing informal settlements as a result of new houses being built on small patches of vacant land within built-up areas. Since independence, the CoW invested considerable resources to provide services to many informal settlement areas. Communal water points, shared flush toilets and access roads have been delivered on a large scale. Nevertheless, the growth of informal settlements has tested the City’s capacity, and large areas remain with few, or no services.

In 2011, 66% of the city’s residents used electricity as the main source of energy, while the remaining 34% of residents mainly relied on gas, paraffin, and wood. It can be assumed that most of these 34% are informal houses. And in 2011, 19% of Windhoek’s families consisting of about 61,000 people did not have toilet facilities. This has serious implications for public health.

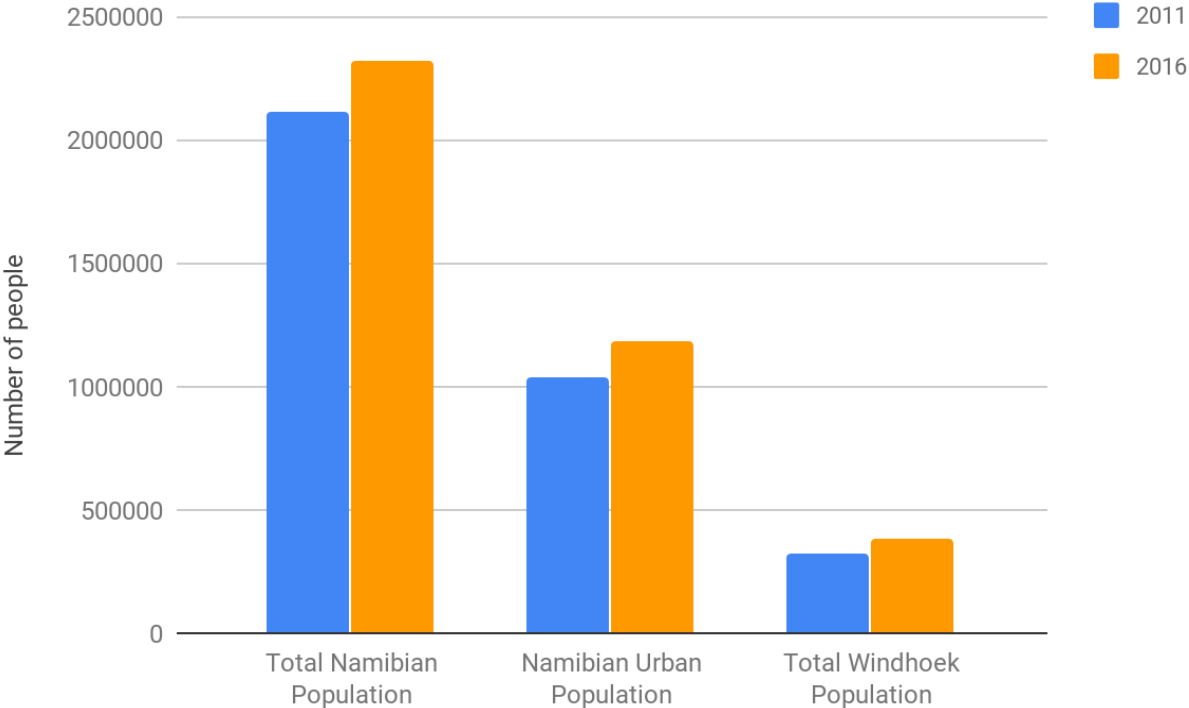


Figure 3. Urban Population in Namibia

Source: Namibia Statistics Agency, 2015

The CoW's vision is to be a "Smart and Caring City by 2022" which substitutes the previous vision- to enhance the quality of life of all our people. This direction will assist to ensure that the CoW is productive, inclusive, and sustainable through rendering access to urban services, socio-economic opportunities, spatial inclusiveness, quality urban environment, and vibrant city life (TSP CoW, 2017).

1.2 Sustainable urban development

Interest in sustainable urban development has increased rapidly in recent years. Unfortunately, the concept of sustainable urban development is debatable because unique definitions and scopes do not exist (Anttiroiko *et al*, 2014). This concept became proven to be societies dealing with its increasingly pressing resource and environmental challenges such as waste and pollution management. As more nations are implementing this concept in their development plans, it has created important impacts on national policies and urban planning. The City of Windhoek experienced urbanization challenges both internally and externally ranging from congestion, illegal settlements, and waste management, and land delivery during the 2011-2016 development period.

In 2007, the United Nations Development Programme expressed that the concern over sustainable urban development will continue to grow, especially in the developing countries which are undergoing rapid urbanization. The Sustainable Development Goal (SDG) 11 (sustainable cities and communities) aims to make cities and human settlements inclusive, safe, resilient, and sustainable by the year 2030. Ensuring that urban spaces are safe and sustainable entails providing

safe and affordable housing available to all, and upgrading informal settlements. This also includes providing basic services like sanitation, electricity, and water. SDG 11, also aims at minimizing the environmental impact of urbanization, providing affordable public transportation and universal access to green and public spaces. In order to achieve these goals, an integrated urban development plan proves essential.

The pressure for land delivery persists and remains a contentious issue and as part of its strategic imperatives, CoW has aligned its revised strategic intent to the Harambee Prosperity Plan and the proposed strategic plan for the Ministry of Urban and Rural Development (2017/18-2021/22) which was discussed at the Stakeholders' Validation Workshop held on 24-25 April 2017 (TSP CoW, 2017). Issues that were discussed such as communal water points being a common feature in many of Windhoek's informal settlements. Water cards are often provided for free and can be re-charged at local offices of the CoW, such as those in Ombili or Wanaheda. Twenty-five liters cost N\$0.40 cents in 2017, and according to some local residents N\$50 may pay for water for a home of 4-5 people each month. That corresponds to roughly 25 liters per household member per day.

However, there are the main challenges such as creating awareness, policy development, institutional, urban governance, and management reform and they are clearly national and inter-sectoral in nature. Despite these challenges that CoW faces, soliciting inputs from a broad and diverse stakeholder network comprising community, administrative and political representatives of the Khomas Regional Council (KRC) and the CoW's elected Constituency Councillors, to obtain feedback to all urban development plans. (TSP CoW, 2017).

1.3 Connectivity landscape in Namibia

Namibia, despite its small population of 2.495 million, has a reasonably diverse media landscape. There are five daily newspapers, more weekly newspapers and a few regional publications that publish in specific languages. Government owns one daily and two weekly newspapers – one of which is a joint venture with NamZim Newspapers Pty (Ltd) based in Zimbabwe. The most popular is The Namibian with daily circulation figures of about 243 000 (AMB: Namibia, 2019).

According to the African Media Barometer: Namibia (2018), the number of people reading newspapers is dropping quickly and more Namibians are watching television in 2020 (about 43%) than they were in 2012 (27.5%) and radio listeners have increased exponentially from 64.5% in 2012 to 80.3%. While listening levels have increased, access to radio is shifting to cell phones or internet sources. There are 30 radio stations, including 10 community stations. One of these is an online platform operated by the state-owned Namibian College of Open Learning.

Namibia's mobile subscriptions exceed its population at 2.75 million, but only a third of these use their phones to access the internet. Most (92%) are prepaid connections, which raises issues around data costs for accessing online information. Only a quarter of Namibians are active social media users with the most growth seen in Instagram (230 000 users) and Twitter users (46 0000 users); only 35% of Facebook users are over 13 years of age. Mostly men use Twitter and LinkedIn and women use Facebook and Instagram. Print still dominates as a trusted source of information in Namibia (AMB: Namibia, 2019).

1.4 Public engagement and sustainable development

(Creighton, 2005), argued that public engagement enables citizens to provide informed and timely input as well as ultimately influence decisions that affect their environment. Decisions can range from individual projects (such as the extension of a suburb area) to broader strategic plans, laws, and policies such as permitting regulations. Citizens participate through commenting on draft policies, raising concerns at a public hearing, or serving on advisory committees. Publicly engaging the public in decisions can enhance the quality and legitimacy of decisions proposed by the government. It can ensure fairness in decisions and give voice to underrepresented groups. It can also generate demand for higher industry standards and support for better practice- a sense of ownership to say.

Sustainable Development particularly focuses on developing countries and solidarity of other countries with them. In order to achieve sustainable development, political engagement should be ensured especially for women (United Nations, 2015). Public engagement builds trust between parties and strengthens the capacity of all stakeholders to engage in matters that are pressing to a nation and in this instance, environmental decisions and policies. It allows socially, economically, technically and environmentally sustainable solutions for urban living, advanced digital service-ecosystems for health, wellbeing and equity of the citizens of which it encourages co-creation (Allwinkle and Cruickshank, 2011).

Involving the public in developmental plans can be time-consuming and sometimes expensive, says a report from the International Association for Public Participation (IAP2) in 2006. To obtain effective results, organisations need to build capacity and train staff. A negative experience of this process may lead active participants to have negative perceptions of the outcome, and they may be less likely to engage in future processes.

1.5 Co-creation

Davis and Andrew (2017), argue that significant developments in the concept of engagement in urban governance has shifted mindsets to focus on learning and social innovation, in which engagement is conceptualised as co-creation and co-production from the early postmodernist ideals of countering expert dominance. Co-creation is increasingly being considered to support precinct development in that it facilitates deeper user engagement in the design process (Davis and Andrew, 2017).

Although governments tend to be risk-averse and change-resistant, opportunities for co-creation arise basically from the need to change, whether it is service delivery technologies, communications methods and/or patterning of service delivery. Such co-creation evolved the style of complex evolution that face cities requiring an all-hands-on-deck approach that needs backing from problem identification through resolution and completion (Boonstra and Boelens 2011).

There are various forms of engaging the public which inevitably lead to engagement co-creating. Figure 4 illustrates the form in which this happens including the forms of engagement, the promise

and purpose of each, and some examples of tools that constitute each type.

Form of Engagement	Promise	Purpose	Tools
<i>Inform</i>	We will provide the public with the information required to understand the issue	To facilitate increased knowledge of the issue and the decisions concerning it	Fact sheets, web sites, open houses, pamphlets, social media
<i>Consult</i>	We will provide the public with clear and coherent information regarding the issue, welcome the public's thoughts on the topic, and indicate how their input affected the outcome	To obtain feedback on analysis, alternatives or decisions	Public comment, focus groups, questionnaires, public meetings, Twitter town halls, online idea forums
<i>Deliberate</i>	We will engage the public in two-way conversation to make certain that the public's thoughts and concerns are factored into proposed solutions/decisions	Greater level of participation by stakeholders as they assist in idea generation	Workshops, deliberative polling, advisory committees
<i>Co-Create</i>	We will rely on relevant stakeholders input in combination with organizational expertise to incorporate recommendations into decisions to the maximum extent possible	Shared ownership between the organization and the stakeholders as the community is involved in each aspect (and the outcomes) of the decision	Consensus-building, participatory decision-making, panels, formal partnerships, informal coalitions, alliances, networks

Figure 4. Forms of Public Participation

Source: Adapted from the IAP2 Spectrum of Public Participation

Co-creation in a public sector context tends to be concerned with generating knowledge about their experiences with public services and provide a better understanding of the problem and/or challenge for professionals to act on (Boonstra and Boelens 2011). Furthermore, citizens tend to engage as individuals and not as representatives of groups or communities, and it is their unique interaction experiences with a specific public service provided by CoW, i.e an individual who resides in the rural settlement and works in the CBD interacts with the City of Windhoek's' Public Transport Department in which they ideally develop and co-design a pick-up and drop-off schedule plan.

1.5.1 Roles of Co-creation

In a case when participation is conceptualised as co-creation in urban planning processes, this does entail a different role allocation for planners, public authorities and citizens than in more traditional-modernist planning processes. Citizens are granted a much more active role, either through self-organised activism linking to existing institutions, or through public initiatives such as living labs (Agger and Lund 2017). The role of planners shifts from being the experts making the plans and drawing up strategies for an area to becoming facilitators of processes that link existing networks of resource-ful urban actors and create new emergent networks. The role of public authorities broadly becomes that of the enabling state (rather than the regulating state), providing the opportunities, arenas, and power for civic networks to form and act.

1.6 Smart City Concept

The concept of smart city urban development is based on various decision-making aspects related to the quality of life. Smart city is a novel concept aimed at managing cities (urban areas) in a modern manner, using the latest technical means offered by advanced technologies, according to the environmentally-friendly principles and while maintaining the tendency to save resources and achieve the expected results (Murray, Minevich and Abdoullaev, 2011).

According to Ziembra (2017) the development of innovative technologies, especially computer and communication technologies, used in various fields of human activity allows the functionality of contemporary cities to be significantly improved. Intelligence is, in its broad sense, the ability to solve problems, perceive relationships, learn, adapt to the changing external circumstances, seize opportunities, prevent threats, act purposefully, think rationally and cope with problems effectively, process information actively, act logically and foresee the consequences. Considering

the smart city concept, urban management should be characterised by the above features of intelligence. Innovations and technologies foster “smart” management both in public organisations and the cities, although it is obvious that human activity like authorities, society, users, policy-makers, are the ones implementing the rules of this concept.

When discussing development of urban areas, it is not uncommon to highlight a new stage of urbanisation. Increasingly, cities are labelled as intelligent or smart, even though there is no clear-cut definition which would specify the criteria that cities ought to meet to be considered as such. The concept of smart cities combines several ideas of urban development (Nam and Pardo, 2011).

In Europe, cities like Helsinki, Finland, approach a smart city concept based on actions aimed at reducing carbon dioxide emissions, as well as effective use of energy while improving the quality of its inhabitants’ lives. Smart cities are based on partnerships forged in order to stimulate progress in areas where production, distribution and use of energy, as well as mobility, transport and advanced technologies are tightly connected and offer improved quality of services while reducing energy and resources consumption and decreasing the emission of greenhouse gases (EC, 2012). It is assumed that modern smart urban technologies are an important contribution to sustainable development of European cities. European cities are precursors of switching to a low-emission economy owing, above all, to the promotion of investment in innovative and integrated technologies.

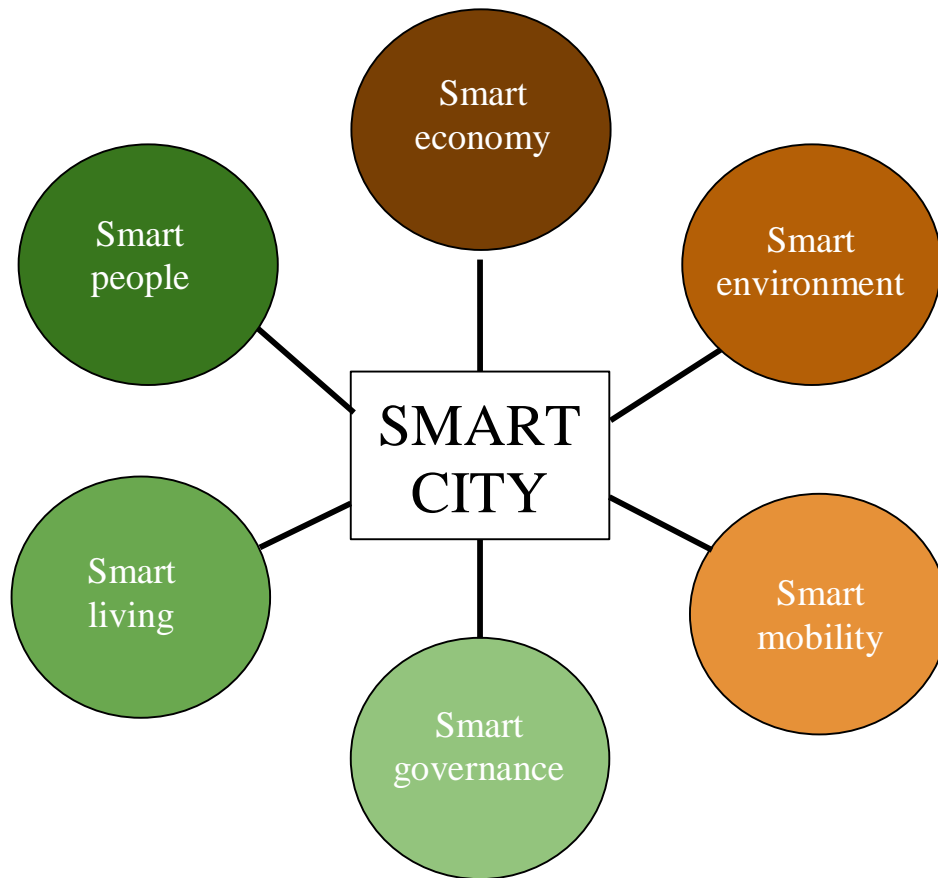


Figure 5. Dimensions of smart cities

Source: www.smart-cities.eu (accessed on May 07, 2018)

The above dimensions of smart cities are derived from a conventional regional and neoclassical theory of urban growth and extension. Including the use of technology among the 6 dimensions, these are based on competitiveness of cities and regions, social capital, governance and public management. The concept is assumed to transcend the use of technology in order to effectively use the energy resources and lower CO₂ emissions by also including other areas of urban life and the functioning of public administration.

The City of Windhoek's focus is to ensure that it becomes known as a Smart City - restoring its ability to govern itself more effectively, ensuring financial sustainability and initiatives that focus

on technological advancement, cleanliness, best practices, vibrancy, green, affordability and innovation by 2022. This can be achieved by promoting duty of care to the organisation by looking at seven key performance areas such as; Public Participation; Public Safety and Security; Organizational Performance Management; Organizational Financial Performance; Enterprise Risk Management; Internal Audits and; Leadership Development (TSP CoW, 2016).

According to the Transformational Strategic Plan (2017), the CoW also intends to secure land for the construction of a fire station along Sam Nujoma Drive (between Avis & Ludwigsdorf). This is in response to the growing residential/industrial developments occurring along the Sam Nujoma/HoseaKutakoInternational Airport Drive (e.g. Finckenstein, Herbothsblick, Auasblick and a portion of Kleine Kuppe), and for which the planning and design work will commence in 2018/19. Therefore, it is important that staffing requirements be met in time for operations to swiftly commence upon completion of the construction phase.

Robèrt *et al* (2002) explain that when considering which sectors are related to the indicators of a smart city, a list, apart from the above mentioned economy, environment, quality of life, governance, mobility, people that have obvious relation to urban development, the following factors: buildings; municipal functions; public places; landscape/ecosystems; waste; water; energy; information and communication technology and mobility in practical circumstances.

1.7 Research Problem

Public engagement is one of the important elements of a smart city concept, and may be considered a challenge when implemented efficiently. Often citizens involved in the process are likely to be invited to verify requirements, designs and prototypes that have already been produced.

They are also likely to be used as sensors or data collectors and while urban developers are expected to govern and drive procedures, citizens play a rather passive role (TSP CoW, 2017) and

thus, in order to understand the role of public engagement in this approach, this study explores the current public engagement processes and how well they are implemented in order to strengthen efforts made in urban development plans for an informed, pro-active and productive citizenship in Windhoek.

1.8 Research Study Questions

1. What are the current public engagement tools and how effective are they in urban development planning?
2. What are the challenges faced in the implementation of public engagement procedures at the ‘City of Windhoek’s Public Cycle Meetings (PCMs)?
3. Which additional lessons could be adopted by the City of Windhoek from a ‘smart city approach’ emphasizing stakeholder engagement?

1.9 Scope of the Study

The scope of this study is set within the capital city of Namibia, Windhoek. Sub-Saharan African countries receive EU funding for smart city initiatives (EC, 2012), the study intends to appraise the management and staff members of the City of Windhoek on the importance of co-creating a sustainable future for the next generation. The study further aims to develop recommendations for decision makers to strengthen decisions in urban planning processes by outlining strategic planning procedures that allows all relevant stakeholders to be included in urban development plans and at informing policy and the findings may assist in preventing and resolving challenges associated with initiating public participation programs and public engagement entirely in the long run.

The Government of Namibia has initiated a programme to eliminate and curb the housing need faced by the nation in accordance to some of the pillars found in Sustainable Development Goal 11 (SDG 11) which is essentially established to “Empower Inclusive, Productive, and Resilient Cities” was proposed as a post 2015 SDG to make all cities socially inclusive, economically productive, environmentally sustainable, and resilient to climate change (Revi and Rosenzweig, 2013).

The expanded right related to sustainable cities is the right to adequate housing, which includes several core elements such as legal security of tenure; availability of services; adequate sanitation; affordability, in that housing costs should not compromise occupants’ enjoyment of other human rights; accessibility, taking into account the needs of disadvantaged and marginalized groups; and location, in relation to employment opportunities (Reviand Rosenzweig, 2013).

2. RESEARCH OVERVIEW AND THEORETICAL PERSPECTIVE

When examining Earth from a ‘systems’ thinking’ perspective, it is evident that society is behaving in ways that are both socially and ecologically unsustainable. The world's development since the Industrial Revolution has had significant impacts on the environment, and we are within an era where the changes on Earth can be largely attributed to destructive, widespread human behaviours (Steffen *et al.*, 2011).

Growth and destructive actions of human society have resulted in negative impacts on sub-systems, and are facing a systematic sustainability challenge (Ny, *et al.* 2006). Examples of challenges the Earth faces may be identified through increased pollutants and manmade chemicals (Law and Stohl 2007), increased levels of atmospheric carbon due to the burning of fossil fuels (Canadell *et al.* 2007) and the vast destruction of natural habitats (Kennish, 2002).

The structure of society functions within a system that no longer allows all individuals to meet their basic human needs. This may be observed through social problems such as inequality and an erosion of trust within the social fabric (Gustavsson and Jordahl 2008). If such behavioural patterns continue, the Earth will lose its ability to provide the necessary resources and conditions to meet human needs.

Robèrt (2006) argued that challenges in sustainability can be described through a funnel metaphor (Figure 6). This metaphor depicts civilization entering a funnel where the narrowing walls represent continuously degrading socio-ecological systems through resource depletion, destruction of ecosystems and social conflicts, brought on by societies unsustainable activities. By disregarding the funnel walls, failing to recognise the continuing decline in capacity and resources to support human society and create conditions that no longer can sustain human activity (Robèrt,

2006). The question mark in the image represents the unforeseeable future if humankind's behavioural patterns continue. In order to reach social and ecological sustainability, society must adapt to functioning in a manner that does not disrupt the natural balances within the systems on Earth.

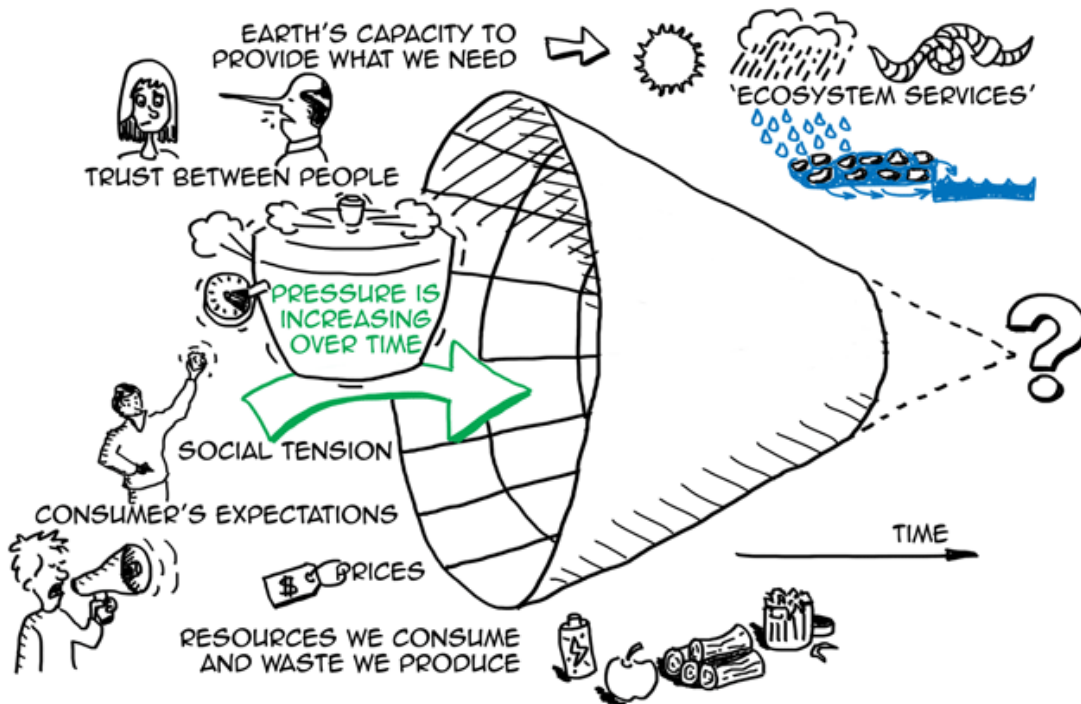


Figure 6. The Funnel Metaphor

Source: Robert K. H. (2006)

2.1 Urban Planning and Sustainability

Angel *et al.* (2012) explain that cities across the world are faced with numerous challenges, which puts a lot of pressure on city resources. The Smart City concept is increasingly becoming a global phenomenon, with more cities rapidly harnessing the power of information and communications

technology (ICT) to improve quality of life, service delivery and develop sustainable solutions to help cities overcome the challenges they face.

According to Amugongo (2016), further explains if the capital reaches 1 million inhabitants by 2040 it will be an indication that Namibia will transit from being a mostly rural society to a mostly urban one within the next two decades, with a third of the country's population projected to be living in the Erongo and Khomas regions. This growing population requires a much deeper understanding of the notion of a smart city. Therefore, the CoW needs to find better ways to manage city resources and although Windhoek is not entirely at present a smart city, it has the right conditions and well-positioned to leapfrog to transform into a smart city because of its good network coverage and ICT infrastructure.

By managing cities intelligently, it is anticipated that cities will efficiently manage scarce city resources (Pendelton, Crush and Nickanor, 2014). Very little low-cost land has been made available to low-income settlers. Rather, the CoW's main focus has been to upgrade certain existing informal settlements where considerable resources have been invested over the last two decades. The City of Windhoek also has extensive, detailed databases on many informal settlement areas, and regularly conducts household surveys, especially where the City is upgrading services and providing infrastructure (Weber and Mendelsohn, 2017).

2.2 Legislative and Policy Framework for Public Participation

The legislative and policy framework regarding community participation in the development planning and service delivery system that the City of Windhoek needs to implement for it to ensure sustainable development in the Khomas region.

2.2.1 An International Perspective: Manila Declaration (1989) & The Johannesburg Summit (2002)

The Manila Declaration (1989), provides an international perspective which states that current development practices are not just, sustainable or inclusive. Current development practices are based on a model that demeans the human spirit, divest people of their sense of community and control over their own lives, exacerbate social and economic inequity, and contribute to the destruction of the ecosystem on which life depends. There is an appeal to national governments to ensure community participation in the development planning process with the purpose of promoting sustainable development.

Governments need to understand that authentic development enhances the sustainability of the community and that a sustainable human community can only be achieved through people-centered development namely:

1. Sovereignty resides with the people, the real social actors of positive change. The legitimate role of government is to enable the people to set and pursue their own agenda.
2. To exercise their sovereignty and assume responsibility for the development of themselves and their communities, the people should control their own resources, have access to relevant information, and have the means to hold officials of government accountable.
3. Those who would assist the people with their development should recognise that it is they who are participating in support of the people's agenda, not the reverse.

The Manila Declaration suggests the transformation of international and national systems, which includes the redefining of participation, open access to information, building inclusive alliances, reducing debt dependence, reducing resource export, strengthening people's capacity for

participation, creating demonstrations of a self-reliant community, and creating national and international monitoring systems.

The Johannesburg Summit is an equally important summit which stipulates the necessary issues to be considered for sustainable development. Such issues include the question of what fairness means in terms of community participation in the development planning process. According to the Johannesburg Summit (Haas et al, 2002:6, 21), fairness on one hand calls for enlarging the rights of the poor to their habitats, while on the other hand it calls for cutting back the claim of the rich to resources.

The Johannesburg Summit recognized the plight of the poor, and emphasised that they (the poor) should be recognised as actors who shape their lives even under conditions of hardship and destitution. The Summit suggests that unless there is a shift in power patterns, the poor will almost always lack the security and the resources necessary for a decent existence and from the Johannesburg Summit point of view, it is important to give equal opportunities to all stakeholders to participate in the development planning process.

2.2.2 A National Perspective

Namibia adopted one of the most liberal constitutions in the world and set about creating a new culture of citizen-based democracy and tolerance in which its aspiration for freedom and well-being of the nation could develop (Tjitendero, 2002:6). The Constitution is the supreme law of the country. It has made provisions, of which some are relevant to community participation. These provisions include:

Article 6: Protection of life

The right to life shall be respected and protected.

Article 8: Respect for human dignity

The dignity of all persons shall be inviolable.

Article 17: Political activity

1. All citizens shall have the right to participate in peaceful political activity intended to influence the composition and policies of the government. All citizens shall have the right to form and join political parties and subject to such qualifications prescribed by laws as necessary in a democratic society, to participate in the conduct of public affairs, whether directly or indirectly through freely chosen representatives.

2. Every citizen who has reached the age of eighteen (18) years shall have the right to vote and he who has reached the age of twenty one (21) years has the right to be elected to public office, unless otherwise provided herein.

Article 19: Culture

Every person shall be entitled to enjoy, practise, profess, maintain and promote any culture, language, tradition or religion subject to the terms of this Constitution and further subject to the condition that the rights protected by this Article do not impinge upon the rights of others or the national interest.

Article 20: Education

1. All persons shall have the right to education.

4. All persons shall have the right, at their own expense, to establish and to maintain private schools, or colleges or other institutions of tertiary education.

Article 21: Fundamental freedoms (1)

1. All persons have the right to:

(a) freedom of speech and expression, which shall include freedom of the press and other media;

- (b) freedom of thought, conscience and belief, which shall include academic freedom in institutions of higher learning;
- (c) freedom to practise any religion and to manifest such practice;
- (d) assemble peacefully and without arms;
- (e) freedom of association, which shall include freedom to form and join associations or unions, including trade unions and political parties;
- (f) withhold their labour without being exposed to criminal penalties;
- (g) move freely throughout Namibia
- (h) reside and settle in any part of Namibia;
- (i) leave and return to Namibia;
- (j) practise any profession, or carry out any occupation, trade or business.

Article 45: Representative nature

The members of the National Assembly shall be representative of all the people and shall in the performance of their duties be guided by the objectives of this Constitution, by the public interest and by their conscience.

Article 95: Promotion of the welfare of the people

The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following:

- e) Ensuring that every citizen has a right to fair and reasonable access to public facilities and services in accordance with the law;
- j) Consistent planning to raise and maintain an acceptable level of nutrition and standard of living of the Namibian people and to improve public health;

k) Encouragement of the mass of the population through education and other activities and through their organisation to influence government policy by debating its decisions;

l) Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic wastes on Namibian territory.

The Constitution makes provision for community participation by providing platforms such as freedom of expression, capacity building through education, and sustainable uses of natural resources and the use of indigenous knowledge. It is up to CoW to incorporate these provisions as stipulated in the Constitution in their strategic plans to ensure community participation for sustainable development.

The Regional Council Act (Act 22 of 1992) is the second highest policy document, besides the Constitution, which guides the functions and responsibilities of the Regional Council in Namibia. It has made provision whereby community participation is guaranteed. One such platform is the access of communities to Regional Council meetings. In terms of the Regional Council Act (Act 22 of 1992), Section 11(2a) stipulates that every meeting of the Regional Council shall be open to the public, except on any matter relating to the appointment, promotion, conditions of employment and discipline of any particular staff member of a Regional Council, any offer to be made by the Regional Council by way of tender or otherwise for the purchase of any property or the institution of any legal proceedings by, or opposition of any legal proceedings instituted against a Regional Council.

This provision enables the community to participate in Regional Council decisions, although they do not have voting powers. This provision also enables the community to influence and direct the

decisions of the Regional Council, based on their desired needs which must be addressed through the planning and implementation of development projects.

The Local Authority Act, (Act 23 of 1992), is meant for the affairs of Local Authorities. However the Regional Council can also make use of it to run and manage the settlement area within their regions, as stipulated in the Regional Council Act (Act 22 of 1992) Section 32(1)(a),) subject to the provision of Subsection (4)(a) (Republic of Namibia, 1992: 43). The provision of Section 30, except paragraphs (p), (s), (t), (v), (w), (x), (y) and (z) of Subsection (1), 33 to 62, 66 to 76, 78, 89, 90, and 93 of the Local Authority Act 1992, shall apply mutatis mutandis in respect of the management and control of a settlement area by a Regional Council, as if such Regional Council was a Village Council as defined in Section 1 of that Act, or such settlement was the area of such Village Council. It is therefore imperative for CoW to make use of the Local Authority Act to manage and control the settlement areas in terms of the provision of basic services. All the services that should be provided, such as water, sewerage, refuse removal, and maintenance of infrastructures, should be carried out by CoW. It is through the provision of these services that CoW needs to find a way to engage community members to ensure its sustainability.

2.3 The Emergence of Public Engagement in Urban Planning

Public engagement has been recognized as an important part of community planning since the 1960s (Godschalk and Burby, 2003). The rational comprehensive model was the dominant model for planning in the 1960s. This model saw planners as technical experts undertaking an exercise in applied science. There was little to no consultation with citizens the land was being planned for. Local planning activists like Jacobs (1961), advocacy scholars like Davidoff (1965), and

communicative planning theorists like Healey (1992) criticized the rational planning model for being exclusive and predominantly dependent on the planners' technical opinion.

A single, unifying model of planning did not emerge as interest shifted away from the rational model, however, several new approaches and strategies were suggested (Lane, 2005). These approaches such as Transactive, Advocacy, Marxist, Bargaining, and Communicative accounts of planning, differed in their theoretical explanation but shared a common goal of overcoming the many criticisms associated with the rational model (Filion, Shipley, and Te, 2007; Lane, 2005). Several planning tendencies emerged through this era of "theoretical pluralism", specifically as related to public participation.

First, most contemporary models recognized that planning is political in nature and thus demands an active role for the public (Brooks, 2002). Second, there was a shared assumption that the interests of individual stakeholders are varied and often contradictory. Lastly, all models of planning view participation as a fundamental component of planning and decision-making. Planners are regarded as facilitators and mediators; not isolated experts (Lane, 2005). The shift in thinking about what planning is, how it is done, and what role the planner has, resulted in changes to planning legislation and policies, including the requirement to consult with the public on planning matters.

Urban development, as well as planning upgrading activities, are guided by the City's 'Development and Upgrading Strategy' published in 1999 (City of Windhoek, 1999). Its key aspects remain; to focus on the low and ultra-low income population; to introduce services that are affordable for residents; to provide guidelines on upgrading of low and ultra-low income townships in terms of physical structure, land tenure, and services; to provide guidelines for the promotion and facilitation of self-help development. The document defines 'upgrading' as: "An action

whereby an existing formal or informal settlement is regularized to provide a form of security of tenure or where new or additional municipal services are installed or a combination of these is pursued”.

Mandates for public engagements are intended to increase local government commitments to democratic practices, specifically as it pertains to increasing the diversity of interests represented in the decision-making process. While the City has an excellent track record in meeting the legal, ethical, and constitutional requirements of public participation, it intends to further improve its open and transparent dialogue with residents in planning, implementing, and monitoring projects and programmes (TSP CoW, 2017).

“The City will, therefore, train and capacitate staff members who engage directly with residents. Furthermore, to ensure maximum participation and feedback, tailored methods of engagement and communication will be developed, considering that different circumstances require different communication platforms.”

According to the CoW Transformational Structure Plan (2017), the City applies the strategy in different scenarios. For example, a community group (residents of a township or block of individual erven) may request additional services from the CoW. All households participating in such a request must be fully up-to-date with all payments for leases, erf loans, and services before the request can be considered. And upgrading of services will only be considered if the community has purchased the land (block, without formal internal subdivision), or is willing to do so. The City then conducts a feasibility study, one element of which evaluates if there is a reasonable chance of recovering the cost of upgrading. The strategy encourages the participation of organized self-help groups to purchase blocks of land and to develop the land with their own resources.

It is evident from the above-noted planning legislation and professional codes of ethical practice in Windhoek, involving the public in planning decisions is encompassed within the role of the community planner. What is less clear, however, is what this process looks like in practice, who is represented by this process, how processes are evaluated for effective results, and the degree to which public opinion ultimately influences the plans, strategies, and decision-making.

2.4 Public Participation vs Public Engagement

Rowe and Frewer (2004) defined public participation as the practice of involving members of the public in the agenda-setting, decision-making, and policy forming activities of organizations and/or institutions responsible for policy development. It is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic process, to remind us why engaged citizens were originally introduced- to give those without power a voice.

Rowe and Frewer (2004) acknowledge that this broad definition provides some uncertainty around what is meant by the term “involve”. This results in whoever that is involved, left to interpret the appropriate level of citizen involvement. For example, public participation is intended solely to inform or consult with the community (one-way communication), while other participation programs are designed to collaborate with and empower the public (two-way communication) like how the CoW intends to accomplish by 2022.

The International Association for Public Participation (IAP2), an international organization that is working to advance the practice of public participation, sees public participation as the process of providing those who are affected by a decision with the information they need to be involved in a meaningful way, and it communicates to participants how their input affects the decision (IAP2, 2014). Unlike the other three definitions, this definition includes the expectation that participants

will be informed on how their feedback will be integrated into the decision-making process. This definition also highlights the role planners have in preparing citizens so they can actively participate. Not everyone is coming to the conversation with the same information or level of understanding, so it is critical that the engagement program provides an opportunity for learning and developing a shared understanding of the project before asking for feedback.

The IAP2 offers a Public Participation Spectrum (Figure 7). The title of this table as a spectrum is significant because the IAP2 is communicating to the user that informing is the lowest level of engagement, while empowering is the highest level. This table outlines what the promise to the public from the host organizations is under each level of participation.

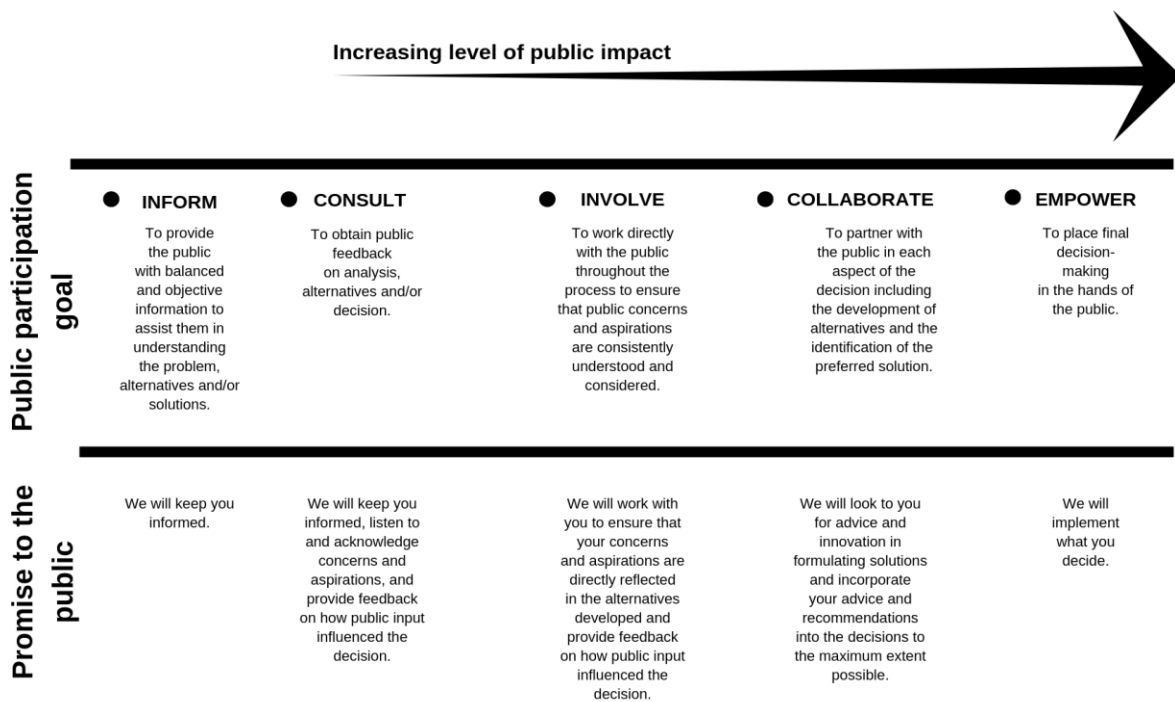


Figure 7: Public Participation Spectrum.

Source: Based on a figure in IAP2 (2018: 35)

The City of Windhoek defines public engagement as the cornerstone of a responsive, inclusive, and caring organization. It empowers communities to participate in issues that affect them

optimally. It also creates a consensus for action on complex matters that require the following: Broad-based community input; Improved understanding of the role and contribution of the community; Enhancement of social capital, distribution of social and economic benefits, and improved political processes.

Public engagement is the process of seeking and facilitating the involvement of those potentially affected by or interested in a decision (Mdunyelwa, 2008). The principle of public engagement holds that those who are affected by a decision have a right to be involved in the decision-making process. Public engagement implies that the public's contribution will influence the decision. Public engagement is part of people centred or human centric principles. In this respect public engagement may challenge the logic of centralized hierarchies, advancing alternative concepts of “more heads are better than one” and arguing that public engagement can sustain productive and durable change.

The purposes of public engagement are to promote transparency, encourage openness in government, and build ownership of development decisions as well as programmes and projects. Public engagement encourages citizens to be more involved in the decision-making processes that have an impact on their local community. It also serves to advance citizens' understanding of how the government works and confers upon them the capacity to access governmental decision-making processes. Public participation provides the public with the opportunity to influence and participate in development programmes and projects (UN-HABITAT, 2004).

2.5 Principles and core values of public engagement

For effective implementation of public engagement, it is important to understand its principles and core values as highlighted by the Manila Declaration (1989). The realization of these principles

and core values is of great importance to the public engagement process, as part of a people-centered development. As stated in the Manila Declaration (1989), a people-centered development seeks to return control over resources to the people and their communities to be used in meeting their own needs.

The principles of public engagement, based on the Manila Declaration, as applied to the case study are as follow:

1. Sovereignty resides with the people, the real actors of positive change. This calls for the City of Windhoek (CoW) and its development agencies to change the perception that communities are the recipients of development projects or activities, as opposed to being actors in the development planning process and service delivery system.
2. The legitimate role of government is to enable the people to set and pursue their own agenda. The question is how the CoW can change the current trend, for example, the budget allocation which has strings attached and which demands that a project should be implemented as it was initially planned, and which cannot be adapted to community priority needs? The CoW needs to identify various platforms under which communities set their own agenda and the implementation thereof. It needs to establish its role as the government representative at grass roots level and find ways to facilitate communities so that they can set up and pursue their own agenda.
3. To exercise their sovereignty and assume responsibility for the development of themselves and their communities, the public must control their own resources, have access to relevant information and have the means to hold the officials of government accountable. This point suggests that CoW must put into effect policies that require the community to engage and ensure that relevant information is provided to communities for sustainable service delivery.

4. Those who would assist the public with their development must recognise that it is they who are engaging in support of the public's agenda, not the opposite. The value of the outsider's contribution will be measured in terms of the enhanced capacity of the people to determine their own future.

Besides the above general principles another aspect of public engagement is the importance of the core values (IAP2, 2002) of public engagement which the CoW needs to recognise and implement in order to ensure public engagement in developing programmes and projects in the region. The following are the current core values as highlighted by City of Windhoek Transformational Strategic Plan (TSP CoW, 2017):

- Broad-based community input
- Improved understanding of the role and contribution of the community
- Enhancement of social capital, distribution of social and economic benefits, and improved political processes.

The CoW can only address community participation in development planning and service delivery systems if staff members, in particular development planners who are facilitating the process of development projects, bear in mind these principles and core values.

Even though there are principles and core values which define community participation, community participation is not an easy process. There are realities that one needs to take into account so as to better prepare when engaging communities in the development process and service delivery systems.

2.6 Realities of Public Engagement

One should realize that implementing public engagements in development planning is not an easy exercise, as the form which participation takes is influenced by the overall circumstances and the unique social context in which action is being taken. There are many unknowable and outright surprises (Fitzgerald, Mc Lennan and Manslow, 1997: 5). It is important to take note of these realities as highlighted by the Department of Water Affairs and Forestry (DWAF), (Republic of South Africa, 2001: 9-10). These realities are:

1. Public engagement is a costly exercise and a time-consuming process. It may necessitate the commitment of a wide range of an organization's staff members over a long period of time.
2. Due to the unpredictability of human behaviour, problems may develop at any time despite good planning and good intentions.
3. Stakeholders may raise old, unsolved issues that are extended to the current initiative.
4. Stakeholders may use the engagement process as a platform to further their own agendas.
5. It is likely that issues of a different focus will be raised and this brings the risk of conflict. The way in which this conflict is managed will determine its effect on the engagement process. The energy created by the conflict may be turned into positive energy that aims at resolving issues both related to, and beyond, the focus of the initiative.
6. The outcome of a public engagement process cannot be predetermined because people are unpredictable. The process must be flexible in order to adapt to unforeseen circumstances. It is not always possible to satisfy everyone, which can result in some people not approving of the initiative.
7. Public engagement can lead to the realization that the initiative is not feasible.

An understanding of these realities by the CoW would assist it to develop mechanisms which enable it to be ready and accelerate the implementation when engaging the public in the development planning process and service delivery system and respond to the outcomes of the public engagement processes.

2.7 Public Engagement Tools

IAP2, (2002) definition of public participation provides more direction to planners on what genuine and good public participation looks like, but there remains uncertainty about what the expected level of citizen involvement and/or control is in community planning at a municipal level. This lack of clarity has resulted in the design and implementation of a wide variety of public engagement tools – some intended to solely ‘inform’ or ‘consult’ with stakeholders, while others focus on building partnerships and enhancing citizen control.

There are no standard tools for the planner or political body to use to measure how engagement impacts or fails to impact the outcome (Shipley and Utz, 2012). This, is in part, a result of there being several community engagement tools and practices employed by planners and government officials across the field. A brief description of each tool as identified in the literature (see Table 1).

Table 1: List of Community Engagement Tools. Table inspired by Shipley and Utz, (2012)

Tool	Description
Public meetings	Public meeting may be understood as a structured working meeting used to discuss a technical issue or idea and attempt to reach an understanding of its role and importance in the planning process (Rosener, 1978).
Citizen juries/committees	These are selected subsets of the total community population that serve as representatives or proxies for the community at

	large (Laurian, 2008).
Focus groups	A collective activity that involves group discussions which explore specific set of issues (Kitzinger and Barbour, 1999)
Design charrettes	Design charrette refers to both a product and a process that continues to involve rapid paced work and high amounts of energy (Sanoff, 2000).
Referenda	Referenda ensure each community members’ voice is equally expressed and fairly heard. Voting can be rather versatile, used in formal settings such as referenda and elections, to simple decision-making at public meetings (Sanoff, 2000).
Crowdsourcing	Is a “collective intelligence system” which issues a challenge to a large group in hopes of arriving at new solutions by providing qualitative information (Seltzer and Mahmoudi 2012).
Social media	The use of popular online platforms to engage large numbers of online users to attend public meetings or disseminate information (Brenner and Duggan 2013)

2.7.1 Impact of engagement tools

The degree to which the public is engaged will vary when considering what tools and/or activities to utilize in a public engagement process and depending on the goals or public engagement form desired, different tools/activities (often in combination) can be used. It is key to understand how tools and activities align i.e., ‘what goes with what’. Complex issues of high interest to the public will have intensive engagement events and processes that use a variety of interlocking tools and activities. Oppositely, simple issues of minimal interest to the public will typically adopt a minimalist approach.

Table 2: Assessment summary of engagement tools. Table inspired by Shipley and Utz, (2012)

Tool	Level of impact
Public meetings	Decisions necessitate public feedback and/or public input may

	impact decisions. Success of the initiative relies on public buy-in.
Citizen juries/committees	Numerous groups have an interest in the issue and there is a lack of consensus or conflict amongst stakeholders and/or the issue involves a variety of personal principles and values.
Focus groups	Lack of consensus or conflict amongst stakeholders and/or the issue involves a variety of personal principles and values.
Design charrettes	A large requirement for technical or professional expertise.
Referenda	There is considerable consensus amongst the public on the issue.
Crowdsourcing	Lack of consensus or conflict amongst stakeholders and/or the issue involves a variety of personal principles and values.
Social media	Providing frequent information updates to the public who have access to digital platforms and considering those who do not.

McComas (2001) concludes that there are no agreed-upon criteria for evaluating the success of a public engagement program, however, the literature presents several possible criteria for measuring success. Table 2, inspired by McComas, lists evaluation criteria under two headings- process-oriented and outcome-oriented. The former measures an engagement programs’ success against implementation, while the latter evaluates success against the results of the engagement effort.

Table 3: Evaluation Criteria. Table inspired by McComas (2001)

Process-oriented criteria	Outcome-oriented criteria
<ul style="list-style-type: none"> • How many people participated? • How many people provided feedback (verbal, written.)? • How fair was the process? 	<ul style="list-style-type: none"> • Were participant comments relevant? • Did participant comments influence the decision? • Were participants satisfied with the

<ul style="list-style-type: none"> • Did participants represent a broader community? • How well was the event publicized? • Did dialogue occur? 	<p>process?</p> <ul style="list-style-type: none"> • Did relationships between participants and the agencies improve (e.g., was trust built)?
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Shiple and Utz (2012) discussed the lack of evaluation standards and guidance in the planning profession, pointing out the several attempts that have been made to evaluate the success of a public engagement exercise. They outline an increasing trend among researchers to study and evaluate the effectiveness of various approaches to engagement in order to improve public engagement in practice. Unfortunately, as indicated on page 22, no evaluation criteria are mandated through legislation, and therefore this question, and others like it, are not always asked during evaluation.

2.8 Smart Participant Engagement

There has been intensive development works, projects and research on the Smart City Concept (SCC). It is often approached from a systemic technology-oriented perspective that provides incentive technological solutions, big data and innovations to make the living environments smarter through a digital technologies application (Oksman and Kulju, 2017). Less attention, however, is given to societal aspects of the Smart City, for instance, smart governance, smart people, sense of community and social learning (Neirotti *et al*, 2014). In addition, what seems to be largely missing is an empirical insight into how and, which smart city aspects can be applied in different geographical or indecisively different cultural contexts. On the same note, less is discussed how to involve citizens and stakeholders for the development processes with digital tools

for increasing transparency and sustainable, long-term results (De Wijs, Witte, and De Klerk, 2017).

Smart cities go hand in hand with smart communities. Smart cities need smart citizens who live and work in these cities need to participate in the adoption and usage of sustainable solutions, at least. Smart communities allow socially, economically, technically and environmentally sustainable solutions for urban living and advanced digital service-ecosystem for health, wellbeing, and equity of citizens (see Figure 8)

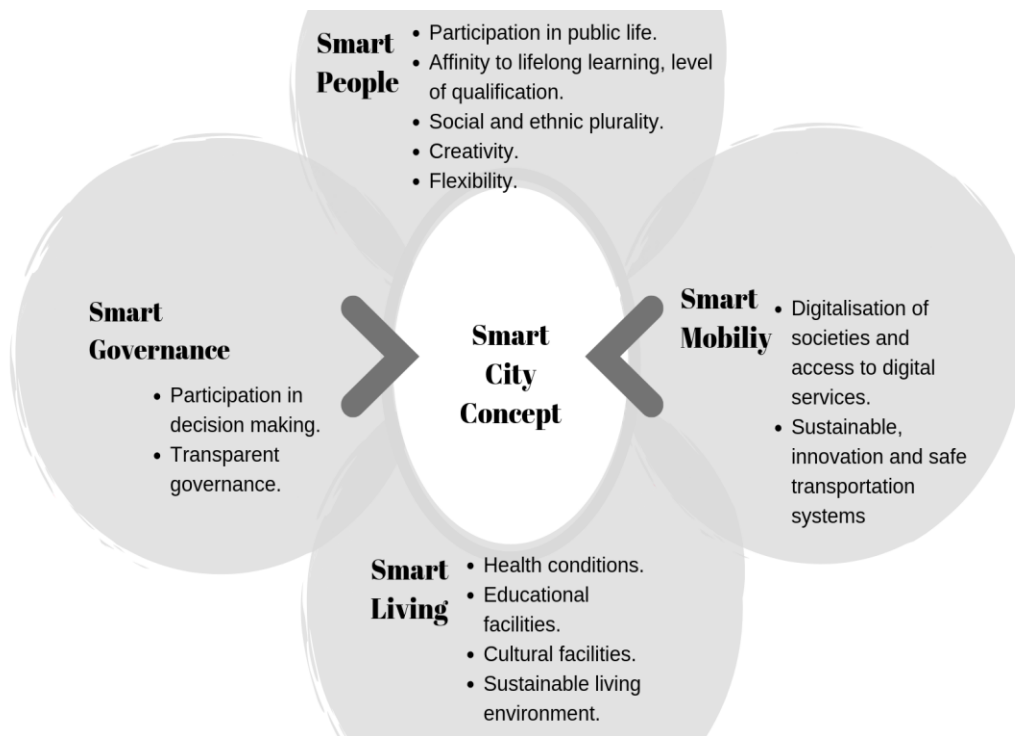


Figure 8: Elements of Smart Community

Source: De Wijs, Witte, and De Klerk, 2017

Furthermore, community engagement is said to increase the legitimacy of government decisions; often regardless of the outcome. Residents and stakeholders are more likely to respect government

decisions if they feel that they were provided with the opportunity to share their opinions. The objective of public engagement under this school of thought is to respect the public's trust and confidence in government, often to prevent criticism and increase the likelihood that stakeholders will accept decisions and plans.

In addition, community engagement continues to increase social capital and what that means is the social networks maintained by individuals and within communities, including ties to family, friends, neighbours, local businesses and coworkers, and the norms of reciprocity and trust which arise from them. Social capital has been linked to several individuals and community benefits, including economic growth, skill enhancement, increased civic participation and enhanced community well-being (Woolcock, 2001).

Community engagement provides local citizens with the opportunity to increase their social capital by building local networks that they need to advance their interests or overcome barriers, such as social exclusion (Lawsons and Kearns, 2010). When affected stakeholders are involved in the identification of local problems and the development of solutions, they are empowered by the feeling that they have influence. It should be noted that genuine public consultation is seen as a way to advance social and urban justice.

2.8.1 Expected outcomes of Public Engagement

The main aim of public participation is to encourage the public to have meaningful input into the decision-making process. Public participation thus provides the opportunity for communication between agencies making decisions and the public. This communication can be an early warning system for public concerns, a means through which accurate and timely information can be disseminated, and can contribute to sustainable decision-making (IAP2 2018).

Table 4. Expected outcomes of Public Engagement

Improved understanding of client expectations and user group needs
Improved agency understanding of conservation issues
Improved agency understanding of the role and contribution of the community
Greater continuity in knowledge
Ability to build community support for a project and to improve stakeholder relationships
Improved public understanding of the agency's responsibilities
Improved staff and community technical knowledge
Improved agency credibility within the community
Improved quality of decision-making by agencies
Enhancement of social capital and flow-on social and economic benefits
Enhanced and informed political process
Greater compliance through increased ownership of a solution
Greater community advocacy for biodiversity protection
Greater access to community skills and knowledge
Improved community understanding of conservation issues and responsibility for conservation outcomes

2.9 Public Engagement Methods

Public engagement procedures aim at consulting and involving the public to allow those affected by a decision to have input. Unfortunately, a general lack of empirical consideration of the quality of these methods arises from confusion as to the appropriate benchmarks for evaluation. The existence of a variety of methods and guidelines that might come under the public participation categorization, ranging from those that elicit input in the form of opinions (e.g. public opinion surveys and focus groups) to those that elicit judgments and decisions from which actual policy might be derived e.g. consensus, conferences and citizens' juries, see Table 5 (Wiedemann and Femers, 1993)

Table 5. A number of the most formalized public participation methods

Participation Method	Nature of Participants	Time Scale/Duration	Characteristics/Mechanism
Referenda	Potentially all members of the national or local population; realistically, a significant proportion of these.	Vote cast at a single point in time.	Vote is usually a choice one of two options. All participants have equal influence. Final outcome is binding.
Public hearings/inquiries	Interested citizens, limited in number by the size of the venue. True participants are experts and politicians making presentations.	May last many weeks/months, even years. Usually held during weekdays/working hours.	Entails presentations by agencies regarding plans in open forum. Public may voice opinions but have no direct impact on the recommendation.
Public opinions surveys	Large sample (e.g., 100s or 1,000s), usually representative of the population segments of interest.	Single event, usually lasting no more than several minutes.	Often enacted through a written questionnaire or telephone survey. May involve a variety of questions. Used for information gathering.
Negotiated rulemaking	Small number of representatives of stakeholder groups (may include public representatives).	Uncertain: strict deadline usually set days/weeks/months.	Working committee of stakeholder representatives and from a sponsor). Consensus required on a specific question (usually, a regulation).
Consensus conference	Generally, ten to sixteen members of the public (with no knowledge on a topic) selected by a steering committee as “representatives” of the general public.	Preparatory demonstrations and lectures (etc.) to inform panellists about a topic, then three-day conference.	Lay panel with independent facilitator questions expert witnesses chosen by stakeholder panel. Meetings open to a wider public. Conclusions on key questions made via report or press conference.

Citizen's jury/panel	Generally, twelve to twenty members of public selected by stakeholder panel to be roughly representative of the local population.	Not precise but generally involve meetings over a few days (e.g., four to ten).	Lay panel with independent facilitator questions expert witnesses chosen by stakeholder panel. Meetings not generally open. Conclusions on key questions made via report or press conference.
Citizen/public advisory committee	Small group selected by a sponsor to represent views of various groups or communities (may not comprise members of the true public).	Takes place over an extended period of time.	Group convened by a sponsor to examine some significant issue. Interaction with industry representatives.
Focus group	Small group of five to twelve selected to be representative of the public; several groups may be used for one project (comprising members of subgroups).	Single meeting, usually up to two hours.	Free discussion on a general topic with video/tape recording and little input/direction from a facilitator. Used to assess opinions/attitudes.

Wiedemann and Femers, (1993) state that it is important to understand what results of a participation exercise constitute good outcomes, what processes contribute toward these, and when they are desirable. Referenda and public hearings seem to be employed often simply in recognition of a need to involve the public in some way, assuming that involvement is an end in itself rather than a means to an end. There is little comprehensive or systematic consideration on matters around public engagement in sustainable urban development plans, and whether any particular application of a particular method may be considered successful usually remains undetermined. This may reflect the intentions of authorities using such methods, where the appearance of involvement is sufficient, and little genuine interest exists in implementing any recommendations.

2.10 Conclusion

In the 1990s Blackie and Tarr (1999) recognized the potential of participatory models in Namibian policy-making. Since 1990, key government policies on sustainable development in Namibia have aimed at issues relevant to the Namibian public and policy-makers. It should be noticed that the most successful of these have been built on strong community-level institutions (e.g., conservancies) or on a solid scientific base (e.g., management of fisheries, environmental assessments).

The role of stakeholder participation in the policy and legislation formulation has been present including cooperation between various ministries like the Ministry of Urban and Rural Development. The role of public participation, cooperation among sectors within government, and cooperation with other stakeholders are recognized to be beneficial for the policy outcomes. Democratization of natural resources and the development of institutions for sustainability have benefitted from an approach such as involving the citizens in decision-making (CoW, 2017).

Incentives that are more efficient and policy measures to encourage public and intersectoral debate, as well as indicators of sustainable development should be sought. More recently, here, Jere, Kauhonina and Gamundani (2014) suggest that Living Lab as an advanced mode of stakeholder engagement could be applied as the Namibian government aims to improve service delivery to citizens.

Citizen participation and social capital are considered essential elements of a smart community and in social scientific research, the term community may refer both to communities that are location-based, whose social ties rely mainly on geographical proximity such as neighbourhoods or modern communities that are rather formed around interests and skills such as professional communities than around locality (Jere, Kauhonina, and Gamundani, 2014).

Citizen participation and social capital are essential elements of a smart city concept. In Europe, governments have been launching ICT platforms to facilitate citizen participation for Smart City development. They allow different types of citizen participation, such as voting, rising public awareness and monitoring political processes. Moreover, co-creation and co-design of urban public services support resilience building and acceptance of public urban services that support sustainability (Preece and Maloney-Krichman, 2005). Co-creation has an impact on the experienced quality of the living environment while co-design activities affect the experienced quality of the living environment, and diverse fields have recognized the relationship between the citizens' sense of place, social cohesion and public health outcomes (Steen, Manschot and De Koning, 2011).

With relatively few studies looking at the smart city and urban planning development in Sub-Saharan Africa from a co-creation perspective, this research study intends to develop an effective participatory approach in the context of urban development in the City of Windhoek.

3. RESEARCH METHODOLOGY

The comprehensive research methodology was developed to ensure that the objectives of this research design were achieved. Presented in this section are the research design, the target population and sample, the instrumentation used to collect data and the analysis of the data.

Literature review provided insights about the theories around public participation and its potential effects, sustainable urban development and elements featured in a smart city concept to strengthen the involvement of the public. Reports from the City of Windhoek's public meetings presented information about public participation procedures.

3.1 Research Design

This research study adopted a qualitative single case study research strategy to better understand the dynamics in the processes and procedures implemented to comprehend the background of the study. A case study is an empirical research approach that investigates a contemporary phenomenon in depth and within its context, especially when the boundaries between phenomenon and context are not clearly evident (Yin 2009).

This design permitted specific explanations of CoWs' vision in their transformational strategic plan. Interviews were employed and observations of the interviewees within the urban development ecosystem of influence were organised.

The objective of employing a case study research design was to elicit the impact of public meeting processes and procedures on participants such as 'learning something new', 'having a better understanding of other views', 'changing one's own perception of community spirit in the CoW' and/or 'enhancing the personal commitment for sustainable development in the CoW'.

3.2 About City of Windhoek

Windhoek is the national capital of Namibia, located in the centre of the country and at the cross-roads of major north-south and east-west trunk routes. The city is perched on the Khomas highlands at an altitude of about 1,700 meters with 325,858 inhabitants in 2011. Over the past 137 years the city has developed as the political, administrative, commercial and industrial centre of the country. Windhoek forms part of the Khomas Region as well as the Khomas Regional Council which represents the central government at regional level under the Ministry of Urban and Rural Development. Regional councils work together with the National Planning Commission to make a development plan which will guide growth and development in each region (Weber and Mendelsohn, 2017).

The City of Windhoek (CoW), which is a Municipality of Windhoek was established by the Local Authority Act 23 of 1992 (as amended). Local authorities have the power to make local regulations on a wide variety of matters. All local authorities must supply water, sewerage and refuse disposal services to communities which have been formally established as residential areas – which includes neighbourhoods where the local authority has laid out streets and divided the land up into plots available for purchase. Each municipal council and town council elects a mayor and a deputy mayor from amongst its members. The mayor and deputy mayor serve as the chairperson and vice-chairperson of the council. They are responsible for formulating policies, promoting employment, and monitoring the implementation of the council's policies. The mayor and deputy mayor are accountable to the people who live in the local authority (TSP CoW, 2017).

Regional and local authority council meetings are generally open to the public. Councils can also convene public meetings to give community members a chance to share their views on a particular subject. Public meetings are supposed to be announced in local newspapers and through other

channels, so that interested persons will know the date, time, place and topic. One can request a public meeting on any matter of public interest. If you or your organisation collects the signatures of 10% of the registered voters in your region or local authority, then the council must hold a public meeting (Regional and Local Government, 2018).

3.3 Population

The population of this research study consisted of stakeholders within the sustainable urban development ecosystem in Windhoek, Namibia (see table 6). The list of stakeholders were perceived to have an enhanced understanding of the role and importance of public engagement when working towards building a resilient urban population. These groups and individuals are the direct stakeholders that the CoW planners consult and are the beneficiaries of the planning and development process of the city and therefore, may be perceived to provide sufficient insight around public participation theories.

3.4 Sample

Purposive sampling was employed to select ten participants based on their experiences and expertise. To select ten community representatives from constituencies under the Khomas Regional Council (KRC) in the City, a random sampling technique was used (see Table 6).

Table 6: List of selected participants

Stakeholders in Urban Development	Number of Participants
Min. of Urban and Rural Development	2
Urban & Rural Town Planners	3
NGOs in Sustainable Urban Development	1
University Professors in Social Sciences	3
Community Development Officer	1

Community Representatives	10
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A smaller sample is justified because this research looked at a more exploratory approach, hence the results cannot be accurately interpreted for a generalized population. Thus, a random selection of the ten community representatives was strategically selected on the basis of their roles within the Community Development Committee (CDC). A list of all CDC members of which every member is assigned a specific role i.e CDC Chairperson, Deputy CDC Chairperson, Secretary, and Events Coordinator and at the researcher’s own discretion, ten CDC chairpersons were selected to represent the sample of the study.

These sampling techniques allowed the determination of a sample of an approximate number of participants, of who derived from different organisations (Palys, 2008).

3.5 Research Instrument

Both primary and secondary data were collected in the study. Primary data was collected through semi-structured interviews. The semi-structured interview enabled the interviewer to probe questions that needed clarification during the interview. Though an interview guide was developed, questions could be raised outside the interview to have a more open conversation around the topic at hand. Secondary data were also sourced from existing literature, newspaper reports and the CoW Transformational Strategic Plan.

An interview guide, a voice recorder, notepad and participant observation were the instruments used to collect data for this research study. The interview guide (see Appendix C) was to enable the researcher to remember the discussion points to be covered during the interview. These

interview questions were designed after an extensive literature review. This was to enable the interviewer to have a comprehensive idea on the subject matter.

Interviewee's responses were noted in the researcher's notepad to enable the researcher to remember important themes that came up during the interview. Bryman and Bell (2007, p.489) argue that recording and transcribing interviews allows a thorough study of what interviewees say and also allows the repeated examination of such.

3.6 Procedure

The researcher scheduled interview meetings with 20 selected participants that are within the urban sustainable development of influence. An email was sent out to request for interview sessions with follow up phone-calls to each key informant (see Appendix D). Interview sessions ran approximately 40-45 minutes and sessions ran during availed time by the participants. Weekends were also made available for participants to create convenience for those who may not have the time during weekdays.

All interview sessions were recorded only when the participants had given consent by signing the consent form provided by the researcher (see Appendix A) Additionally, participant observation was carried out during the public cycle meetings (PCMs) hosted by the CoW public participation office. Participant observation is characterised by the direct involvement of the observer in social processes in the examined social context. The observer participates in this context with a predefined social role and acts according to this role. The purpose is to seek immediate insights into the natural behaviour of people in particular situations and to understand the values and norms on which this behaviour is based on (Kawulich, 2005).

3.7 Data Analysis

This research study applied a constant comparative analysis to analyse the data. This approach develops an inductive process that systematically examines and reflects on the views from the participants. Although there is no specific way to measure the different views and effects from the interviews on public participation, the research study looked at the views of the public participation processes on an individual participant level-micro level, a whole group of participants- meso level, and the entire citizenry with the inclusion of politics and policy- macro-level. These three levels were used as a framework for the analysis of the data. The data collected from conducted interviews were divided into categorised themes, aiming at comparing interview results.

3.7.1 Transcription

The interpretation of the data required transcription of the digitally recorded 20 interviews which the researcher performed with the interview guide. The interview intention was explorative, the researcher noted every spoken word to avoid important information being left out, except for word repetitions, sometimes abbreviated.

3.7.2 Coding

This step required a thematic arrangement of the transcript passages for which the terminology of the participants in the interview was taken up and in favourable circumstances might even be applied directly. It is possible to ascribe more codes to the same passage if it covers several topics. It is allowed and sometimes even necessary to dissolve the sequentially of the transcripts, also within passages, but the reference remains the transcript of a single interview (Corbin and Strauss, 2008).

The terminology of interviewees were directly applied as a code, but in some instances, the codes rather described the meaning of what the interviewee said in a specific passage using the research software, Atlas.ti. Codes were not assigned to irrelevant sections and passages, e.g. if an interviewee totally got off track during the interview session. The researcher defined the meaning of a code immediately after creating it, and if necessary redefined it after revising the code allocation.

3.7.3 Thematic comparison

Thematically similar passages analysed from different interviews were grouped together. The coding was text-oriented and constant validation of the thematic assignments was important when need arose (see Table 7). The results of the thematic comparison were examined continuously by the statements of the interviews on validity and completeness. This step was done by creating reports of every single code group with Atlas.ti. This meant that the passages of all interviews with the same code that belonged to the same code group were grouped together and put in one report and inserted in an Excel file, arranged by code groups.

3.7.4 Theoretical conceptualization

The common parts in the results of the thematic comparison were once again allocated to categories representing theoretical concepts. The process of category formation implies on the one hand, a subsuming of parts under a general concept of validity, on the other hand, a reconstruction of the general concept applicable to the actual passage as recorded. Hence, the formerly created text-based terms and codes are now translated into theoretical concepts (Corbin and Strauss, 2008). This step was entered in the same Excel file that was used for the thematic comparison, to formalize

the reconstruction of the general concept. The researcher proceeded to group together the thematic comparison parts and then assigned them to the theoretical concepts.

In the table below, the theoretical conceptualization for the thematic comparison of a smart city concept awareness is exemplified.

Table 7: Example of the theoretical conceptualization of a smart city concept awareness

Thematic comparison - smart city concept awareness	Theoretical Concept
A person has become aware of a smart city concept through the CoW Transformational Strategic Plan (2017-2022) “Smart and Caring City by 2022” and thus strengthen it, and the importance of local added value	<p style="text-align: center;"><u>MICRO level:</u></p> <p style="text-align: center;">- social learning and thereby resulting changes in attitude and behavior.</p>
The Public Cycle Meetings made a person aware that he/she could walk and cycle more, use public transport more often and drive less, and to actively participate more in planning sessions	
Attending the PCMs seems to have had some general awareness-raising for a person, how he/she could generally behave more environmentally consciously (and get others to do it as well), above all with regards to mobility and engagement.	

The left side of *Table 7* shows the thematic comparison parts that reflect the codes dealing with the views regarding a smart city concept. The right side of *Table 7* represents the theoretical concept of social learning and thereby resulting in changes in attitude and behaviour, that may be assigned to similar thematic comparison parts.

3.8 Conduct of Public Engagement Meetings

Provision has been made in the Regional Council Act 22 of 1992, section 11 subsections 1 and 2 on the composition and the sitting of the Khomas Regional Council meetings. Subsection 2 (a) stipulates that every meeting of the Khomas Regional Council shall be open to the public (communities) (Republic of Namibia, 1992:15). The chairperson of the Khomas Regional Council is the Regional Governor. If the office of the chairperson is vacant, the Chief Regional Officer may at any time or, at the request in writing signed by not less than half of the members of the Khomas Regional Council, shall within 14 days after receipt of such request or, if the National Council is in session, within 14 days after such session, convene a special meeting of the Khomas Regional Council. A notice signed by the Chief Regional Officer and containing the time, date and place of, and the matters to be dealt with at every meeting of the Khomas Regional Council, shall be delivered to every member of the Khomas Regional Council so as to reach such members at least 72 hours before such meeting (Republic of Namibia, 1992:15).

Despite these provisions, the perception and the understanding amongst many officials at the Khomas Regional Council and in other Line Ministries, is that the Khomas Regional Council meetings shall only be attended by the Councillors. No community members, including other officials, whether from the Khomas Regional Council or other agencies, are allowed to attend and take part in such meetings. This flawed perception and understanding has prevented communities and other officers from participating and contributing to the discussion and decisions of the Khomas Regional Council, which in a way affects them as beneficiaries.

3.8.1 City of Windhoek Public Engagement Meetings

The Khomas Regional Council remains convinced that public engagements in the affairs of the City is key to excellent municipal service delivery. These platforms enable citizens to interact with their elected municipal Councillors and influence developmental programs of the City.

In 2016, CoW took a different approach to hosting public meetings. From the traditional zonal public meetings which in the past left out some members of the community and regional Councillors not able to attend. Public meetings were held at Constituency levels. Considering that all Khomas Region Constituencies fall within the City boundaries. The first round of public meetings was launched at a mega meeting held in April 2016. It was an open town hall style-meeting attended by residents from all the Constituencies of the Khomas Region.

The meeting schedule for the Khomas Regional Council meetings is drawn up at the beginning of every year. Despite this, the meeting schedules are not shared with other officials from other Line Ministries or agencies. It is only shared with the Councillors and head of directorates in the Khomas Regional Council office. Officials working in the constituency offices, if they do not request the meeting schedule for the Khomas Regional Council meetings through their Councillor, will not receive a copy of the Khomas Regional Council meeting schedule. Therefore they cannot share with interested communities or persons in their constituencies as to when the Khomas Regional Council will be having a meeting for them to attend or share information necessary for development planning or services provision in their areas.

Though the Regional Council Act 22 of 1992 made provision for notices or agenda for the meetings, there is no provision made for these notices to be shared with interested community members or institutions. Line Ministries and agencies can only receive an invitation if the meeting

is to have a discussion concerning their ministry or office. It becomes a problem if there is not sufficient information required for such a discussion. To ensure proper coordination, information flow regarding the Khomas Regional Council meetings needs to be encouraged to enable the community to participate.

The Khomas Regional Council is the highest body, which can affect and effect any decision taken on regional development planning. Communities can make use of this body to effect and affect decisions taken in terms of development planning which may negatively affect their future. This can be done by attending Regional Council meetings. However access to meetings is limited. The communities can also have a positive influence over decisions taken at the national level through the Khomas Regional Council. Due to a lack of awareness and understanding about the function of this body, beside the provision of services in the region, there is no way the community can make use of this body to their advantage.

The CoW's Corporate Communications Policy(CCP) (2017) states that the Corporate Communications, Marketing and Public Participation Division is responsible for co-coordinating all communication activities in the organisation. In this regard, the Division shall support and coordinate all communication efforts with the main aim of enabling the Mayor and Chief Executive Officer to perform their functions. Sensitization of the community members about their rights regarding public meetings is one of the weak points and CoW continues to strengthen this area.

Community members or individuals with good project ideas or proposals, find it difficult to share their information with the Councillors, who in turn need to be able to share this information with other community members in their constituencies. The issue of language difficulty also poses a challenge for community engagement. While communities are allowed to attend the public

meetings, legislative and policy information is often available only in English. This makes the process inaccessible in many ways and those who do not have English skills are disadvantaged.

According to the CoW's Mayoral Annual Report, (2016) efforts are not strengthened to sensitize communities and officials on their rights to attend and engage in public meetings. Some of the reasons (as highlighted by the communities and officials) which may have led to community non-participation, engagement levels and/or in attendance include the facts that:

- No publicity was generated regarding the public meetings,
- Some Councillors might feel embarrassed when presenting issues in front of community members,
- Sometimes issues discussed in public meetings are not relevant to communities, and it becomes boring to them, and
- Line Ministry representatives felt they were not obliged to attend the public meetings.

Therefore they can only attend at the request of the Municipal Council.

These issues need to be addressed to enable an active public participation as well as an active engagement level from communities in the development planning and service delivery system of the CoW.

3.8.2 Current Engagement Tools

The Corporate Communications, Marketing and Public Participation Division within the CoW is responsible for providing strategic advice regarding Corporate Communications Policy development, programme planning and implementation. It also develops and implements communication plans and produces publications for information dissemination.

This division is also responsible to establish main engagement tools which are used to advise and engage on the council communications. The current engagement tools are as follows:

- Public Meetings - two cycles of public meetings (i.e. 26 meetings per cycle) and / or as needs arise, planned annually in all ten constituencies of the City. Consolidated Public Meeting Minutes and feedback records are produced and open to the public.
- Media Conferences & Briefings - serves City of Windhoek's first line of contact with the media public and is responsible for coordinating all media relations regarding development items of importance and will be circulated to those impacted upon, either for information purposes or for a factual draft response..
- Website & Social Media Usage - serves as a window in which the public are able to access CoW's operational and developments information.

3.8.3 Community participation structures

“For the purpose of effective regional development planning and coordination, there shall be established in every region a Constituency Development Committee” (Republic of Namibia, 1998b:72-73).

The Constituency Development Committee is composed of the chairperson who is the constituency Councillor, one representative each of the Non- Governmental Organisations, a representative of government service providers in the area in respect of each sector, three persons with disability representing people with disability in the constituency and two youth members. At least one third of the members of the Constituency Development Committee shall be women (Republic of Namibia, 1998b:71).

As stated in the Decentralisation Policy (Republic of Namibia, 1998b:72-73), Constituency Development Committee is responsible for the following functions:

- facilitating the establishment of community based management of information systems in the area,
- Identify and assess community needs or problems to be considered for both constituency development proposals or plans and capital projects,
- Prepare and evaluate development proposals or plans for the constituency for submission to the Regional Council,
- Initiate, encourage, support and participate in community self-help projects and mobilise people, material, financial and technical assistance in relation thereto,
- Monitor and evaluate the implementation of the development plans as approved by the Regional Council and write reports,
- Serve as a communication channel between the Regional Council and the people (communities) at the constituency, and
- Carries out any other function which may be imposed by the law or incidental to the above.

The current situation is that this body is found in some constituencies while in others it is found by nature of the existence of the institutions, but nobody was appointed to these bodies. Although stipulated in the Decentralisation Policy, most members of Constituency Development Committees interviewed during the study period were not conversant with the terms of references of the functions of this body. The CoW and Constituency Development Committees did not perform their responsibility of capacitating and guiding these bodies, and making sure that they function in all 10 constituencies. This has prevented communities from expressing their views, wishes and aspirations for their constituencies.

3.8.4 Ideal line of reporting and feedback

The ideal line of communication, reporting and feedback is where information and feedback flows in a clear channel of communication from bottom to top and vice versa. Through this type of communication, information flows from all structures and institutions. This would improve the development planning process and delays in planning and implementation of development projects for service delivery will be minimised. The ideal communication, reporting and feedback channel is highlighted in figure 9 below.

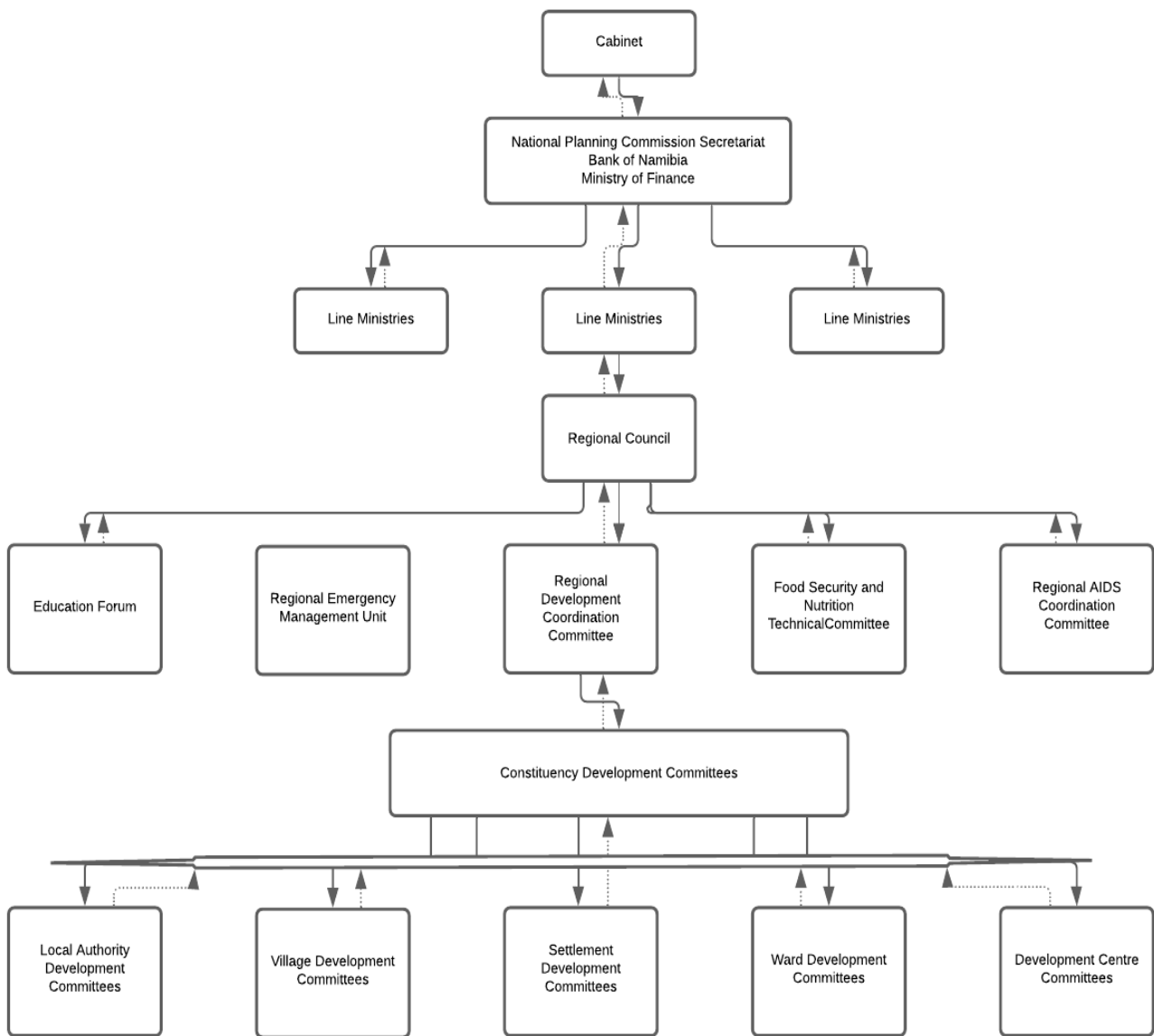


Figure 9. Ideal line of reporting and feedback flowchart

Source: Flowchart inspired from TSP CoW, 2017

Various structures that enable community participation have been discussed. It is necessary to look at other views and tensions emanating from institutions and various structural problems.

4. RESULTS

The results of this research study presented referred to the following research questions;

1. What are the current public engagement tools and how effective are they in urban development planning?;
2. What are the challenges faced in the implementation of public engagement procedures at the ‘City of Windhoek’s Public Cycle Meetings (PCMs)?; and
3. Which additional lessons could be adopted by the City of Windhoek from a ‘smart city approach’ emphasizing stakeholder engagement?

The results are allocated to three levels of measuring the effectiveness of public engagement processes, the micro, meso and macro level. There are undoubtedly interconnections between these three levels. However, this research study adopts these levels, as they provide an interesting overview of the results.

At micro-level, theoretical concepts such as education including awareness around the Smart City Concept, social learning and behaviour, empowerment, as well as enhanced community spirit and common orientation are presented. One of the research questions was to identify the challenges faced in the implementation of public engagement procedures at the ‘City of Windhoek’s Public Cycle Meetings (PCMs); this will be elaborated in greater detail.

The interviewees’ perceived effect on the collaborations from local and international stakeholders at PCMs, that may be related to the theoretical concept of practices of planning at meso-level. Mainly considered at macro-level, the experiences in engaging the entire citizenry, changes in political skills, the use of technology and identifying policies that could be considered to be adopted by the CoW are presented.

4.1 Public engagement at micro-level

This section dealt with the reflections of the interviewees about their general understanding of urban trends around the world and especially in Namibia. Most interviewees specifically mentioned that they had some knowledge of the current trends faced by cities.

An interviewee described urbanization and housing demands as some of the major social trends during the past five years in Namibia.

Migration from rural to urban areas has been a major trend the ministry has identified during the past five years. When people move from rural to urban areas in search of better opportunities they tend to put pressure on urban areas because they are not designed to cater for rapid influxes. (IP#03: Ministry of Urban and Rural Development)

Furthermore, this section included questions on what some of the challenges in urban development processes are and who the major actors are that play in urban development plans.

...serviced land is delivered at a slow pace now because the rural migrators are not adequately managed in terms of providing them with the basics (land, water and electricity). (IP#06: City of Windhoek)

Several interviewees stated that through their public meetings they have learned about who else are active players in the urban development ecosystem and understood better everyday political decisions.

...the major actors in urban development are the government and the municipality. These two entities work very closely together in terms of releasing land and servicing it after it has been released. Private firms/developers, NGOs, citizens etc then come in to develop the erven made available by the municipality and the government. (IP#06: City of Windhoek)

Several interviewees reiterated a point and made aware of how difficult it has been to fully understand what a smart city concept entails.

I don't have much knowledge of a smart city concept. I fully understand that the CoW is looking at having a smart and caring city by 2020 and maybe that this is how a smart city concept plays a role. Adapting frameworks from this concept and incorporating it into its transformational strategic plans. But personally, I do not have much knowledge of it. (IP#10: Windhoek East Constituency)

4.1.1 Practices of planning public engagement meetings

At the onset of the interview, interviewees were asked to describe the methods in which their departments and/or offices typically use to engage the community on planning matters. The engagement tools and mechanisms shared by interviewees fall under the umbrella of 'traditional' engagement methods such as public meetings; street announcements, online websites, surveys, and citizen advisory committees.

We are moving towards a more informal approach to implementing community engagement meetings. Right now, our constituency relies on outdated engagement processes, such as hosting town hall meetings and open houses at open fields. (IP#12: Samora Machel Constituency)

Interviewees from five constituencies highlighted the need to go beyond traditional engagement methods in order to engage with those harder-to-reach audiences – individuals that do not attend public meetings, reasons being that they are not interested, not aware of the initiative, or that they do not have the time, resources or ability to participate.

We currently use two online platforms for engagement: Whatsapp and Email. These online tools allow people to engage where and when they want. For the most part, these two online

tools are mobile-friendly so you can even access them on the go and respond if need be.
(IP#13: Windhoek West Constituency)

Interviewees explained how the application of suggestion boxes at councillors' offices or newscast as channels to reach masses to collect comments or feedback. These suggestion boxes were open to dropping notes in different languages, and the CDCs would facilitate the conversation in their own language at the public engagement meetings. It was noted by three interviewees that this engagement tool was effective in gathering feedback from several diverse groups in the community.

Although the comment cards were effective in gathering comments or feedback from many diverse groups in the community that we couldn't have reached otherwise, there were other challenges that arose because control officers and CDCs were less directly involved in this form of outreach. What I noticed is that often when we got those notes, we had to translate back into English because it is the official language when the Councilor chairs the engagement meetings. (IP#14: Katutura East Constituency)

4.2 Public engagement at meso-level

The meso level is related to the whole group that takes part in a deliberation process. The effects are assigned to the theoretical concepts that ascribe to the meso level in terms of looking into the debate faced in the implementation processes of public engagement.

Encouraging engagement from progressive community members was outlined as a way to bridge the gap between the community and the local authority, and in turn, lead more genuine and authentic engagement exercises. Each constituency in the Khomas Regional Council had an average number of seven, both male and female, part of the CDC.

Interviewees explained that they hired and trained individuals representing different communities around Windhoek to lead part of the engagement in line with the CoW vision.

Every constituency office has a Community Development Committee (CDC), that is hired on a voluntary basis from within each different constituency to be the “engagement lead”. We train them and have them ask their community members to share their vision for the future of Windhoek city. (IP#18: John Pandeni Constituency)

The CoW public participation division explained that their office is trying to think of unique ways to reach the public by hosting info-sessions at local events and festivals. The idea is to “piggyback” off of local initiatives and events planned by the community, community partners, or other city departments. These info sessions provide an opportunity to engage with the community and collect feedback. The aim of such an approach is seen as educating and increasing awareness about any development plans around the city.

We have been trying to go out to public gatherings more. Meet and speak to people about the work that we do at the City of Windhoek and find out what some of their concerns are. Such gatherings can range from night markets to short talk events- go where people already are. (IP#11: Khomasdal Constituency)

Interviewees have recognized the value in collaborating with personalities around the city to assist in disseminating any development plans around the city and as a way to gain the public's trust.

We have strategic plan facilitators that are staff members at CoW, but we also put the word out to church groups, social sports clubs, youth clubs, etc to invite them to give their group a voice. This approach is especially successful with people who may be newcomers, because they are having a conversation with people they are comfortable with, in an environment that is familiar to them. If these identified key influencers do not feel

comfortable leading a conversation on their own, we provide them with facilitators.
(IP#07: City of Windhoek)

The Windhoek East, West, and Khomasdal constituencies experimented with public corporation, as opposed to public consultation. These constituencies did not set out to engage and work with communities affected or “Key Influencers” as it was not part of the engagement strategy.

An example of taking something to the public only after it has been constructed is the Khomasdal Community SME Market. This new development was controversial in terms of location, functionality, and its beneficiaries. We sent out a call for public consultation - low turnout by the way. The planning office proceeded to develop this area. The market stayed unoccupied for over 11 months and no activity was happening. We had to run another consultative meeting and find a solution to occupy these spots for businesses. This time we used a personality to get the public to come in numbers. We found a resolution after we listened to their concerns and suggestions that could accommodate and benefit everyone. (IP#06” City of Windhoek)

During the interviews, unique and innovative engagement tools and approaches to public engagements were shared by interviewees (see Table 8). The Windhoek East constituency proposed Zoom calls during public meetings is one example. Zoom as a platform is unique for two reasons. First, the public can be part of a public meeting chaired by the constituency councilor in the comfort of their own home. Second, the public may easily type their feedback, suggestions, and/or comments in the chatbox feature on Zoom.

One of our goals is to have an open and transparent form of communication with our community. We are looking at finding effective and efficient ways to involve them so that

they feel a sense of ownership in development plans from the city and vice-versa. (IP#10: Windhoek East Constituency)

Table 8: Innovative Engagement Tools Identified

Engagement Tool/ Method	Description
Street Announcements	A vehicle equipped with a PA system. A CDC, ey Influencer to read all announcements and invitations to upcoming public meetings
Key Influencers	Collaborating with key influencers is regarded by interviewees as a way to bridge the gap between the public and the local authorities. “Key influencers” usually facilitate conversations in an environment and language that the public is familiar with.
Online Engagements	Most interviewees indicated the use of online platforms, such as their local authority websites, email marketing, Social Media platforms, WhatsApp, Zoom, to share information about urban development plans, as well as to collect community feedback.
Suggestion Box	This was tested by constituencies that have citizens from vulnerable backgrounds i.e illiterate or do not speak or write the official language English. Notes would be placed in the suggestion box in different local languages and later translated by control officers and the CDCs for the constituency councilors for action plans and feedback.

4.3 Public engagement at macro-level

This section focuses mainly on the experiences in engaging the entire citizenry or rather key actors in the urban development ecosystem. Changes in political influence and its bureaucracy. The application of technology and identify lessons that could be integrated into the public participation policy by the CoW.

4.3.1 CoW Public Participation Policy

The City of Windhoek considers public participation as an important component of successful project and programme implementation and enhances democracy. It enhances understanding of the publics' expectations of the City's responsibilities and ensures greater compliance through increased ownership of solutions. The following frameworks, policies, and programmes have been developed by CoW:

1. Communication and public participation strategy i.e Public meetings
2. Capacity-building at ward level i.e. improve community understanding of civic participation Effective administrative support at public meetings
3. Establishment of effective community engagement channels
4. Engagement with communities on service delivery levels
5. Community capacity building and engagements

While the city has an excellent track record in meeting the legal, ethical, and constitutional requirements of public participation, it intends to further improve its open and transparent dialogue with residents in planning, implementing, and monitoring projects and programmes. The main statutory requirement is that some form of public participation takes place. Planners are not required to measure the degree to which engagement actually impacted or influenced an outcome. Just as they are not required to note who was, and who was not, represented in the process.

The CoW schedules two cycles of public meetings annually. These two cycles of public meetings 26 meetings per cycle. In total, we are looking at hosting over 50 public meetings around the city and more if the need arises. (IP#06: City of Windhoek)

Although evaluation is not a strong suit, it can be assumed that planners do not look back on their engagement projects, programmes, or initiatives. Even if only to learn from past failures and successes and because of this assumption, the interviewees were asked to describe what the pros

and cons of the current engagement procedures are and how they measure the “success” of a community engagement event. The word success is in quotes because there is no professional matrix to measure the success of engagement against (McComas, 2001).

The way in which engagement is approached is decided internally depending on the need of their community. This means that each constituency and the CoW decide what tools they will use to engage the public, how much time and funding they will need to spend on the engagement, who they will target, how they will evaluate their successes, what principles will guide their engagement, and so on. (IP#13: Windhoek West Constituency)

One of the interviewees explained that there is more value in the quality of engagement than in the number of people engaged in the current engagement policy.

As a policy-maker, I assess the success of the consultation based on what happens at the end of the day. If at the end of the day we are bringing an initiative to council and cabinet and it appears from the people coming out to the council meetings, or from the commentary coming forward, that the community is ill-informed then that was a failure of public engagement. If it seems informed then that is a good indication that we were successful. Whether the public is supportive or not doesn't matter much. The fact that we got everyone to support us isn't necessarily a sign of good engagement; that can actually be a sign of poor engagement. Having a group that is well informed is a success in my eyes. (IP#01: Ministry of Urban and Rural Development)

Another interviewee shared a similar opinion when they described education as a ‘pro’ in the current policy:

What we find is that at every meeting there is an educational element and especially in our constituency. We are educating the public because they don't know what we do as planners, what the policies are, what the permitted uses are, etc. Therefore, one measure of success is education. People show up to our meetings with lots of questions. If they leave with fewer questions and an overall better understanding of the process and development application, then I think that marks a level of success. (IP#20: Windhoek Rural)

When asked these questions, most of the interviewees shared the opinion that evaluation is usually not given the time and attention that is required. One interviewee explained that it is not common for them to have very little time, if any at all, to evaluate their successes,

....because we are on to some other issue. We work through time constraints to effectively evaluate an engagement meeting by asking ourselves some general questions, such as:

- How many people were engaged?*
- How many comment forms/surveys did we receive?*
- What was the quality of the comments? Were comments within the scope of the agenda?*
- What kind of reception did we receive? Was it hostile, open, etc*
- Did people leave with fewer questions and a better understanding of the proposed plans?*

(IP#05: The Shack Dwellers Federation)

A “con” in the current policy includes the implementation periods of projects, especially when these issues are raised by the public themselves and they need to be addressed. Budget, resource restrictions and fixed timelines were highlighted as three of the limiting factors.

A perfect example can be a case where the public informed us at one of our public meetings that there was a need to construct a communal ablution facility so that people can relieve themselves. Not only did this area cause outbreaks like Hepatitis B and other water-related diseases but it was also an area where people lived. This is dehumanizing if you think about it. The obvious next steps would have been to construct a temporary ablution facility while working on a more permanent solution for them. It took over 2 years to get this temporary solution set up. Imagine how long it will take a permanent solution? (IP#12: Samora Machel Constituency)

In addition to budget restrictions, planning departments are also often faced with resource restrictions. Some interviewees noted that they simply do not have the staff required to lead more involved engagement exercises or even have technological advancements to make the workload easier. The CoW explained that they are limited by resources: *“at CoW, they have an entire public participation division. We just don’t have the resources to introduce better tech equipment such as virtual reality methods and we don’t have the resources to hire a public engagement expert to support our staff (VR)”* (IP#07).

“The level of engagement is largely dependent on the capacity of the person leading the agenda and discussion. Some people are really good at public and stakeholder engagement and are really creative in their approach, but others aren’t as comfortable and the quality of the engagement on a specific discussion topic is reflective of that.. (IP#03: The University of Science and Technology)

Introducing a Technical Strategic Team (TST) could be a step in the right direction when addressing and implementing urgent matters. *“This team will be put in place to fast track some development plan such as setting up ablution facilities when the need arises and depending on*

urgency instead of having to wait for the cabinet to approve such imminent cases” explained (IP#02)

4.3.2 Planning and Politics

Most of the interviewees highlighted how politics directly influences the type and style of engagement employed. Budget restrictions and resource limitations can prevent staff from attempting innovative approaches to engaging the public that could result in more diverse participation and representative results.

IP#01, explains that as soon as the City Council understands the intangible benefits of genuine engagement, they are more likely to support staff with funding and resources. Without political support, it is very difficult to move a more extensive engagement program through to implementation.

We need political will to move things forward. Councilors in Windhoek are genuine about wanting to do engagement right. Genuine, inclusive engagement starts from the leadership.

We rely on the council to approve the budget and resources required. (IP#01: Ministry of Urban and Rural Development)

Four interviewees shared similar opinions regarding the importance of planners having political support. It was explained that political support does influence the level of engagement, but only if resources accompany this support:

If the support for engagement trickles down through resources, then yes it does influence the level of engagement. If support trickles down just through words, then no. If we aren't resourcing development plans to accommodate the principles outlined in the public engagement policy, if we aren't valuing it, then it doesn't matter. (IP#08: The International University of Management)

One interviewee agreed that international collaboration within their council office has been a very supportive and benchmarking exercise advancing engagement and embracing diversity. The CoW's work is still largely guided through a top-down process, and therefore finding effective and efficient ways to introduce a more bottom-up approach is required.

We were really lucky with our constituency office when we received a delegation from Ghana. They came on a benchmarking consultative meeting trip to Southern Africa (Namibia) so that they can see what has worked and what has not and also share some of their success stories. They have been supportive of a lot of the initiatives we had planned and that encouraged the councillors to give us a lot of room to do our job and help us get the message out there. This helped to make our job easier because they(councillors) are reaching out and explaining things on their end as well. (IP#14: Katutura East Constituency)

5. DISCUSSION

5.1 Summary of Key Findings

Public meetings in open areas, key influences, online engagement, street announcements, surveys, and citizen advisory committees were identified to be widely useful engagement tools to strengthen co-creation amongst the public and the planners. Having said that, Constituencies and the CoW are increasingly expanding their engagement toolbox to include other approaches, such as introducing key influencers, online engagement channels (Zoom) and suggestion boxes installed around their offices to strengthen public participation. The CoW and alongside the constituency offices explained that different engagement procedures are moving towards an informal approach to implementing community engagement meetings seeing that there are over 50 public meetings scheduled annually.

The CoW works towards making it easier for everyone especially those hard-to-reach audiences and marginalized communities to participate in the planning process by providing them with several opportunities for engagement, and in turn eliminating the physical and social barriers associated with traditional engagement tools. Instead of hosting a single public meeting at a set location and time, CoW staff as well as staff from the constituency offices are facilitating several informal engagement activities.

At the local authority level, councillors attempted to build trust between the community by partnering with community development committees (CDC). Whether paid or unpaid, CDCs are asked to engage and converse with residents in their community. The intent is to provide citizens with the opportunity to discuss developments around the city in an environment and language that they feel most comfortable in. When trust and buy-in from the public is not established, a solid urban development plan does not reflect the needs and wants of the public including the

disadvantaged and marginalized groups within Windhoek city. An example that proves a top-down approach is the development of the Khomasdal Community SME Market, this development did not consider the needs and wants of the public that would be affected by the outcome of the development. This resulted in the area not being utilized for several months.

A top-down approach that does not foster genuine engagement or the creation of plans that reflect the needs and wants of the public being engaged. Hence, the involvement of the public in planning and decision making processes makes it more likely to work within established systems when seeking solutions to problems. Public engagement processes enable the public to have a voice in planning matters in order to improve plans, decisions and service delivery and overall the quality of the environments they live in. They promote a sense of community by bringing together people who share common goals.

5.2 What informs community participation?

Policy originates in government ministries where experts draw up legislation to deal with problems that a particular ministry encounters. Whilst in theory it is possible for the community to participate at this level, in practice the complexity and speed of the legislative and policy-making processes diminish such possible participation.

The current practice is that communities receive information about development activities which are happening or about to happen in their locality. This information is disseminated at a public meeting conducted by the Councillors of the constituencies. In this type of participation, communities are informed of what takes place or is going to take place and have no power to influence the decision taken.

The other approach used by CoW is placation (Theron, 2005:118), whereby a few individual members of the communities are consulted or appointed to committees such as the Land Board to make decisions on behalf of the large majority of the community. These individual members sometimes do not give feedback to the majority of the community on the decision taken, leaving communities with no information on the development planning process or services intended for their localities.

A one-way, top-down flow of information is still practised at CoW. The communities are not informed of their rights, responsibilities and options available to them. In this case the community does not have much say in the decision but rather has to choose from the available choices. As per the current practice no information flow from the above-mentioned committees to community members occurs. Neither does information flow from the community to these committees unless maybe through the Councillors.

This type of participation limits the large majority of the community, especially the rural poor, when it comes to getting and giving information on time and having a say in the decision taken. Thus community participation in CoW is limited to those in or close to growth points such as the affluent residential areas, as opposed to those living deep in the informal settlement areas. Information is not being shared and disseminated deep into the informal settlement communities, making it difficult for them to make meaningful contributions to the services delivered to them. Both communities and officials have indicated a problem with the lines of reporting and feedback. The lines of reporting between the Khomas Regional Council, CoW and Community Development Committees are not clearly defined.

The Constituency Development Committee currently only reports to the Councillor who is the chairperson. The Councillor then has to report to CoW, which is then supposed to report to the Khomas Regional Council after a thorough and critical analysis of the proposed projects.

The necessary feedback from the Khomas Regional Council office to the Constituency Development Committee do not occur, especially when it comes to the infeasibility or the cut-off of some prioritized development projects necessary for service delivery due to budget constraints. This leaves the Constituency Development Committee members with the impression that all their prioritized project proposals have been accepted and will be implemented. This erroneous impression leads to poor planning, as every financial year Constituency Development Committees propose new projects, while other prioritised projects that were not catered for in the previous financial year due to budget constraints, remain unaddressed.

As seen previously illustrated in figure 5, for adequate communication and information flow, information needs to flow top-down and bottom-up, horizontal and vertical if the City of Windhoek wants to ensure effective public engagement. With insufficient information one cannot plan properly and therefore the CoW which is the umbrella body in the region with the responsibility of managing development planning and service delivery systems need to find a solution to this communication problem between various institutions, development structures and communities to ensure effective and efficient public engagement.

5.3 A Bottom-Up approach

Based on findings from an online review of the CoW's Transformational Strategic Plan 2017-2022, under their public participation policy, the city schedules to host two public cycle meetings (i.e. 26 meetings per cycle) and/or as needs arise, annually in all ten constituencies in Windhoek

for the next five years. Participants made clear that the engagement processes differ from constituency to constituency when one observes the geographical location of public meetings and socio-economic status of the public. It is difficult to determine whether the engagement process and planning outcome is indeed beneficial to the diverse community needs, additionally, it is also difficult to assess which engagement strategies need to be signed to see a unified outcome in urban plans.

Interviewees explained hiring and training individuals representing different communities to lead part of the engagement in line with the CoW vision. In addition, the community engagement and/or principles of inclusion was identified as important by the research interviewees, as without council and/or political support it is quite difficult to implement inclusive and genuine engagement programs.

5.4 Comments about engagement observation

During observation, City of Windhoek's Public Cycle Meetings were attended to observe how the public engagement is implemented. During participatory observations, none of the organizing officials reflected on or enquired about the absence of community members at the meetings. However, reference was constantly made to the community as the “beneficiaries”. Projects and programmes which are developed are meant for the provision of services to the communities. It was observed that communities do not participate in the decision-making process during the CoW PCM. Not a sufficient population of community members attended the CoW PCMs. Some of the reasons for this given during interviews included issues such as language barriers, the fact that meetings become boring, especially when topics under discussion do not relate to a member, while others are not aware that they have the right to attend these meetings. Therefore if communities

are to engage in these meetings and contribute to the discussions and decisions, sensitisation about their rights needs to be carried out.

During observation, projects were also visited to observe how public engagement in the field occurs practically. Three projects were visited, and organizing officials interviewed made mention that the community participates in the implementation of the projects but not with the understanding that they are fulfilling their part as stakeholders - instead they do it because of the incentives they receive, such as food, T-shirts and sometimes payment for the work done. Thus when it comes to ownership of the projects, most of the projects were regarded as government projects brought to the people and not vice versa.

6. CONCLUSIONS

The objective of this study established 1) leakages in public engagement processes of citizens living in the capital city Windhoek and, 2) determined the extent to which the CoW is increasing the overall participation of the public in line with the “Smart and Caring City by 2020 vision. In this section, the conclusion provides answers to the three research questions in relation to the literature discussed in section 2 and the key findings presented in section 4. This section will incorporate the key findings discussing the merged themes. Limited results of the research study are outlined and future recommendations for research are suggested.

6.1 Evaluating engagement by connecting process and outcome

The findings presented challenges faced in the capital city, Windhoek, is the migration of people from rural to urban areas for better opportunities and the supply and demand of serviced land. Most interviewees expressed that the actors in urban development include the government, the private sector, local authority and most importantly the public. There is uncertainty around the smart city concept amongst the interviewees. They seem to lack knowledge on what an SCC means and what it truly represents even when incorporated into the CoW’s transformational strategic plan.

When asked about evaluation in terms of measuring the success of engaging the public participation policy, some interviewees outlined that they do not prioritize this step in the process because they are limited by resources and it is not legally required. A ‘con’ identified in the current public participation policy includes the implementation periods of solution-driven projects or initiatives, especially when these issues are raised by the public themselves and need to be addressed with imminency, budget and resource restrictions.

The underlying concern would be whether the engagement process has successful outcomes and it was however reiterated by some interviewees that there is no requirement for planners to evaluate the success of an engagement process. It is not mandatory for planners to measure the degree to which the public's input influences the outcome, and they are not required to track who was, and who was not, represented in the process (Shipley and Utz, 2012).

Literature on evaluating public engagement consistently concludes that there is no consensus about what public engagement is intended to accomplish and as such, there are no standard criteria for evaluating the process and subsequent outcomes (Shipley and Utz, 2012; McComas, 2001). The findings highlight the necessity for evaluation to be included in the CoW's public participation policy in the 'TSP 2017-2022' as a required component of community planning.

The City of Windhoek's TSP outlines requirements for consultation with the public such as hosting public meetings, however, there is no requirement to evaluate the effectiveness and outcome of these meetings (TSP CoW, 2017). As a result, evaluation in practice is often reduced to checking a box indicating that public consultation took place. Without critical evaluation of current engagement processes and the outcomes of those processes, how can "we then improve public engagement in practice?". Evaluation is needed to measure the effectiveness of various approaches to engagement in terms of reaching equitable outcomes and engaging the hard-to-reach audiences. It is necessary to ask questions about gender, age, income range and ethnicity, to determine who is represented and who is not represented in a planning process. Without assessing the diversity of individuals engaged, planners cannot confidently conclude that the process and outcome are representative of the community they serve.

The interviewees stated that the efforts they put in at the "front end", determines the quality of the outcome. They further outlined that one of the CoW's goals for public engagement is to see that

there is a correlation between “process and outcome”. This research finding is an example of the leakages in the public engagement process and its outcome.

The literature on having strong plans come from planning processes with extensive public and stakeholder input. To reach these “hard-to-reach” audiences, specific groups are targeted. This may be attempted through advertising, inviting existing community groups, hosting the dialogue in several languages and opening new online platforms i.e Zoom, run popular topics, and inviting key influences.

The CoW and the actors in urban development are increasingly relying on online platforms and social media to reach those hard-to-reach audiences. Online channels such as email marketing and WhatsApp Groups are used to market in-person engagement activities despite the connectivity landscape in Namibia as outlined on section 1.3. They are also used to collect feedback for the audience that cannot, or choose not, to attend engagement meetings.

The study’s findings indicate that planners can’t interest the public in something they are not interested in as explained by one interviewee. They further reiterated that some citizens in Windhoek choose to engage because they are interested in the topic or feel they will be impacted by the decision. From contributing to the future of public transport and public service improvements around their neighbourhoods, communities and around the city as a whole, it is becoming increasingly important for planners to engage the community in a way that makes sense to them.

The success in co-creation projects have commitment from all the key actors in urban development plans and it is important to make sure that planners understand that if they do not make good on their promises to involve the public in the decision-making process, they risk undermining the co-creation element in the implementation process of engaging the public and lose the public’s trust.

6.2 A Reflection on Best Practices in Public Engagement

Highlighting City of Windhoek's best practices with regards to the public engagement procedures and plans, as well as to identifying areas for improvement may be recognized as the intention of this research study as opposed to rank interviewees for their efforts, recommend one's public engagement process over the other, or draw conclusions. The CoW includes a diversified population. This means there are visible different 'needs and wants' from the public in parts of the city boundaries. The CoW is attempting to address the outcome in public participation processes, and integrate principles of equity and inclusion into their participation programs.

The data was collected primarily through a semi-structured interview with one staff member from each institution or organization. Given that a single institution or organization can employ hundreds of staff, it is important to acknowledge that the interviewees do not speak for the entire institution or organization. Although interviewees' responses are associated with their institutions or organizations, their opinions and experiences do not represent the experiences of all staff and should not be read as such.

It is worth noting however, that most of the interviewees included senior and manager-level staff with extensive experience in planning and hosting public engagement programs as well as representing their institution or organization in different settings. Due to the scope of this research study, the researcher only sought to interview individuals from one side of the engagement process- planners and that interviews with the participating public who would be engaged would not be held.

Conversations with the public, especially those identified as marginalized or underrepresented at public engagement meetings, would provide insight into how people want to be engaged by planners, what the existing barriers to participation are, how they can be better supported, and

where there are opportunities for improvement and collaboration. Research in this area would provide planning professionals and policy-makers with vital information to help them design engagement programs and policies that reflect principles of inclusion, equity and diversity.

6.3 Way Forward

A consistent theme in the literature on community engagement is considered to be an important step to enhance citizen control and produce fair-to-all and sustainable outcomes (Hodge and Gordon, 2008; Mahjabeen, Shrestha and Dee, 2009; Innes and Booher, 2004). The literature, however, is less clear about what “good” community engagement means in practice and how it can be measured. This research explored the tools and mechanisms applied by the City of Windhoek and ten constituencies at local authority level to engage the community on planning matters.

Literature on planning and creating co-creation opportunities describe community engagement as “good” but critique the field of planning for failing to evolve and reorganize to keep up with the hindrance in timelines to implement any development plan (Sandercock, 2005; Goonewardena, Rankin & Weinstock, 2004). Exploring the ways in which the CoW are attempting to address the outcome in public participation processes, and integrate principles of equity and inclusion into their participation programs, identified that there are barriers, specifically as it relates to reaching the “hard-to-reach” audiences.

Designing and facilitating public engagement programs in communities, neighbourhoods and environments composed of diversified and socio-economic groups is challenging and as such, planners have a responsibility to inform policymakers to incorporate ensuring that processes and outcomes are representative of the wants and needs of the entire public.

This research study argues that it is no longer appropriate for the planning departments and offices at institutions and organisations to host public meetings and assume that the entire targeted population is equally able to participate. Planners may be advised to acknowledge social structures that facilitate or constrain the public from participating, and consider how traditional engagement methods contribute to these constraints.

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Appendix A

Informed Consent Form

Title: PUBLIC ENGAGEMENT IN SUSTAINABLE URBAN DEVELOPMENT:
FROM PARTICIPATION TO CO-CREATION THROUGH A SMART CITY APPROACH,
WINDHOEK, NAMIBIA.

Name: Ms. Elly DN. Andreas

Student number: 201158361

Address: 118 Johannes Tueijama Street. Katutura, Windhoek, Namibia

Contact: +264-81-639 0153

Email: disney.andreas@yahoo.com

Declaration by participant

By signing below, I agree to take part in a research study entitled PUBLIC ENGAGEMENT IN SUSTAINABLE URBAN DEVELOPMENT: FROM PARTICIPATION TO CO-CREATION THROUGH A SMART CITY APPROACH, WINDHOEK, NAMIBIA.

I declare that:

1. I confirm that I have been informed of the purpose of the interview in the framework of this research study. I have had the opportunity to ask questions about the study and have had these answered satisfactorily.
2. I agree to take part in this interview in a **voluntary** way. I understand that my participation is not mandatory and that I am free to withdraw this consent at any time (during or after the study/interview) without giving any reason and without any implications for my legal rights.

3. The data used for research purposes will be made anonymous and the access will be reserved to the researcher. The anonymous results of this interview will be presented in scientific papers and conferences, or in other non-commercial educational events.
4. I will receive a copy of this information and consent form for my own records.
5. I can contact the Centre for Research and Publication +264 061 2063061; pclaassen@unam.na if I have any concerns or complaints that have not been adequately addressed by the investigator.

6. Audio recorder

- I agree that the interview can be audio recorded
- I do not accept the interview to be audio recorded

Signed at (place) on (date) 2019.

Declaration by investigator

I Ms. Elly DN. Andreas declares that:

1. I explained the information in this document to
.....
2. I encouraged him/her to ask questions and took adequate time to answer them.
3. I am satisfied that he/she adequately understand all aspects of the research, as discussed above.
4. I did not use an interpreter.

Signed at (place) on (date) 2019.

Appendix B

Ethical Clearance Certificate



ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: FHSS /494/2019 Date: 30 September, 2019

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: Public Engagement In Sustainable Urban Development: From Participation To Co-Creation Through A Smart City Approach, Windhoek, Namibia.

Student: ELLY D. N. ANDREAS

Student Number: 201158361

Supervisor(s): *Prof. Dr. F. Becker (Main) Prof. Dr. M. Kautonen (Co)*

Take note of the following:

- (a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.
- (b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.
- (c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.
- (d) The UREC retains the right to:
 - (i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
 - (ii) Request for an ethical compliance report at any point during the course of the research.

HREC wishes you the best in your research.

Dr. E. de Villiers: HREC Chairperson

A handwritten signature in black ink, appearing to read "E. de Villiers", is written over a horizontal line.

Ms. P. Claasson: HREC Secretary

A handwritten signature in black ink, appearing to read "P. Claasson", is written over a horizontal line.

Appendix C

Interview Guide

Title:

PUBLIC ENGAGEMENT IN SUSTAINABLE URBAN DEVELOPMENT:
FROM PARTICIPATION TO CO-CREATION THROUGH A SMART CITY APPROACH,
WINDHOEK, NAMIBIA.

A RESEARCH INTERVIEW GUIDE IN FULFILMENT OF THE REQUIREMENT OF THE
DEGREE OF MASTERS OF ARTS (GEOGRAPHY AND ENVIRONMENTAL STUDIES) OF
THE UNIVERSITY OF NAMIBIA.

COMPILED BY: MS. ELLY DN. ANDREAS

SUPERVISOR: PROF. DR. F. BECKER

CO-SUPERVISOR: PROF. DR. M. KAUTONEN

NB: All the interviews are confidential and the answers are solely used for scientific purposes. Only the researcher of this study has access to the data. The interview data (answers) is treated so that the interviewees cannot be identified in any research publication or equivalent.

Interview code number:

Interviewee: _____

Date: _____

Location: _____ Length of interview (min): _____

Gender: _____

Educational level: _____ Profession: _____

Purpose of the Interview:

In Windhoek, the smart city approach is currently being applied through the City of Windhoek's "Smart and Caring City by 2022". Therefore, it is important to understand the role of public participation in this approach for the discipline of Social Geography and Urban Spatial Planning.

Findings may assist in preventing and resolving problems associated with public engagement, initiating public participation programs and projects in actual life.

The interview will last approximately 40 minutes to 1 hour.

Context of development

Namibian society is changing rapidly. A visible trend is rapid urbanization, which causes challenges for sustainable societal development and public policy. I want to find out the urban development plans in the City of Windhoek from your perspective.

1. What, according to you, have been the major social as well as urban development trends during the last 5 years in Namibia?
2. What have been the major problems and improvements in urban development plans?
3. What are the major actors in urban development plans and why?
4. Are you aware of the Transformational Strategic Plan 2017-2022 launched by the City of Windhoek?
5. Are you familiar with a “Smart City Concept”?

Practices of planning public engagement meetings

These questions deal with concrete questions of public engagement practices in the City of Windhoek.

6. Can you describe, if you have the experience, current and concrete planning and public engagement practices in urban development (e.g., who does what, procedures of planning, decision-making, levels of administration)?
7. What, according to you, are major pros and cons in the current procedure? Should something be changed?
8. What, according to you, are the ideal planning practices when planning public engagement meetings? and why?
9. Are there recent technological innovations for public engagement meetings?
10. How many international collaborations are there when planning for public engagement meetings?

A participatory approach to urban development

There are many experiences in engaging citizens e.g. in the development of democratic institutions in Namibia and some experience in urban development. In the following, I ask your opinion of the participatory and engaging approach to urban development.

11. What is your opinion on engaging people in the planning of the development of the city?
12. What kind of feedback channels do you think people need? How should the communication and the interaction between the institutions and citizens in urban planning be developed?

13. What are the benefits, on the one hand, and the challenges of co-designing the new developments in the city with different stakeholders?
14. What, according to you, are the best ways to activate and motivate the citizens to participate in planning processes?
15. What is your take on the usage of using virtual reality methods and digital technologies in planning? Are there any other digital services that can be used in urban planning?

Thank you for your valuable answers and time!

Appendix D

Interview Request Email

Good Morning X,

I trust this email finds you well.

My name is Disney Andreas and I am a Masters student at the University of Namibia.

I am busy working on the 3rd phase of my MA research project (data collection) and I have identified your office as a supporting key informant.

The research title is as follows:

*PUBLIC ENGAGEMENT IN SUSTAINABLE URBAN DEVELOPMENT:
FROM PARTICIPATION TO CO-CREATION THROUGH A SMART CITY APPROACH,
WINDHOEK, NAMIBIA.*

The project is aimed at identifying gaps in public engagements of citizens in the context of the smart urban development initiative in Windhoek, named as The Smart and Caring City by 2022 (City of Windhoek, 2017).

Further details on the research project can be found and supported by my supervisors fobecker@afol.com.na

and mika.kautonen@uta.fi I have also attached my permission letter from the university for further reference.

This email serves to request for an interview session with your kind office between the dates of the 03 February 2020 - 21 February 2020 at a time of your choice.

I look forward to hearing from you soonest and please do not hesitate to write or call me if you any questions regarding this request.

Best Regards,

Ms. Disney Andreas

Appendix E

Observation List

Title:

PUBLIC ENGAGEMENT IN SUSTAINABLE URBAN DEVELOPMENT:
FROM PARTICIPATION TO CO-CREATION THROUGH A SMART CITY APPROACH,
WINDHOEK, NAMIBIA.

A RESEARCH OBSERVATION ITEM LIST IN FULFILMENT OF THE REQUIREMENT
OF THE DEGREE OF MASTERS OF ARTS (GEOGRAPHY AND ENVIRONMENTAL
STUDIES) OF THE UNIVERSITY OF NAMIBIA.

COMPILED BY: MS. ELLY DN. ANDREAS

SUPERVISOR: PROF. DR. F. BECKER

CO-SUPERVISOR: PROF. DR. M. KAUTONEN

NB: All the interviews are confidential and the answers are solely used for scientific purposes. Only the researcher of this study has access to the data. The interview data (answers) is treated so that the interviewees cannot be identified in any research publication or equivalent.

Item List:

1. Number of Attendees
2. Administrative level: Who does what, Chairing the meeting, minute taking, facilitation?
3. The use of technology: Projector for PowerPoint, Sound, Virtual Reality methods, Computer Video recorder, cellphones etc.
4. Programme/ Agenda.
5. Interaction between the public: Different socio-economic backgrounds.
6. Content being discussed
7. Level of engagement from the public.
8. Incentives provided (if any)
9. Atmosphere/ Environment/ Setting of the room: chairs, tables etc.
10. Time Management
11. Stakeholders present
12. Form of identification: which registered constituency members are present, any outsiders, Non-Namibians.
13. Analyse the rules carefully (if any) put up to keep order.
14. Is the media present?
15. Invited guest speaker/s.
16. Any additional observations made.

Appendix F

Socio-demographic Data Interviews

Interviewee	IP#01	IP#02
Gender	Male	Male
Occupation	Chief Town and Regional Planner.	Head of Town Planning
Educational background	Regional Town Planner	Urban Planner
Location	Ministry of Urban and Rural Development	City of Windhoek

Interviewee	IP#03	IP#04
Gender	Female	Male
Occupation	Lecturer	Sociology Lecture
Educational background	Town and Regional Planner	Sociologist
Location	The University of Science and Technology	The University of Namibia

Interviewee	IP#05	IP#06
Gender	Male	Male
Occupation	Head of Community Engagement	Head of Public Participation Division
Educational background	Town and Regional Planning	Community Development
Location	The Shack Dwellers Federation	City of Windhoek

Interviewee	IP#07	IP#08
Gender	Female	Female
Occupation	Community Development Officer	Academic Researcher
Educational background	Sociology	Sociology/ Human Capital
Location	City of Windhoek	The International University of Management

Interviewee	IP#10
Gender	Female
Occupation	CDC Chairperson
Educational background	Business Administration
Location	Windhoek East Constituency

Interviewee	IP#11	IP#12
Gender	Male	Female
Occupation	CDC Chairperson	CDC Chairperson
Educational background	Political Governance	Social Sciences
Location	Khomasdal Constituency	Samora Machel Constituency

Interviewee	IP#13	IP#14
Gender	Male	Male
Occupation	Project Coordinator	CDC Chairperson
Educational background	Business Administration	Grade 12
Location	Windhoek West Constituency	Katutura East Constituency

Interviewee	IP#15	IP#16
Gender	Female	Female
Occupation	CDC Chairperson	CDC Chairperson
Educational background	Social Sciences	Grade 10
Location	Katutura Central Constituency	Tobias Hainyeko Constituency

Interviewee	IP#17	IP#18
Gender	Male	Female
Occupation	CDC Chairperson	CDC Chairperson
Educational background	Project Management	Office Administration
Location	Katutura East	John Pandeni Constituency

Interviewee	IP#19	IP#20
Gender	Male	Female
Occupation	CDC Chairperson	CDC Chairperson
Educational background	Public Health	Grade 12
Location	Moses ?Garoëb	Windhoek Rural