

# The role of participation and technology in creating sustainable green environments

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**The role of participation and technology in creating sustainable green environments**

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## **Abstract**

Public participation is a process where the public is involved in decision-making regarding planning aspects that interest and affect them. There are various benefits for Urban Planners and other professions from increased inclusion of the public in the decision-making process, especially in terms of development issues and creative thinking. Advantages include the improvement of the effectiveness of plans, the resolving of conflict by enhancing consensus between stakeholders and the building of social capital. The assistance of technology in participatory methods can further enhance decision-making and developmental processes by increasing the number of participants, along with the speed and variety of participatory methods.

Sustainability is a common term that entails development, where the social, economic and environmental aspects associated with the development, are taken into consideration with the aim of preserving current resources for future generations. However, the actual enforcement and implementation of sustainable developments are challenging.

This research argues that participatory processes can enhance and contribute to sustainable development and the creation of sustainable green environments. The research firstly places sustainable development in context with current challenges and opportunities within the urban planning environment, secondly evaluates public participation in terms of definition and execution at an international and South African level, and lastly investigates the influence participatory processes, along with technological advances, can have on sustainable development.

The research concludes with recommendations to enhance the success and effectiveness with regard to the current public participation approaches in South Africa, based on the collective results and best practice findings from various international perspectives, with the aim of improving and contributing to sustainable green environments.

*Key words:* Sustainable development, public participation, sustainable green environments, participatory processes, Urban Planning, computerised methods.

## **Samevatting**

Publieke deelname is 'n proses waar die publiek betrek word in besluitnemingsprosesse met betrekking tot beplanningsaspekte wat hulle interesseer en affekteer. Daar is verskeie voordele wat Stadsbeplanners en ander deskundiges kan benut wanneer die publiek betrek word in hul besluitnemingsprosesse, veral in terme van ontwikkeling en die vorming van kreatiewe denke. Voordele sluit verder in die verbetering van planne en die oplos van konflik tussen verskillende belanghebbendes. Die waarde wat tegnologiese innovasie bydrae tot deelnemende metodes kan besluitnemingsprosesse nog verder verbeter deurdat dit nog meer lede van die publiek die geleentheid gee om deel te neem aan publieke deelname prosesse, en dit terselfdertyd teen 'n vinniger tempo te doen. Tegnologie in publieke deelname verbreed ook opsies in terme van publieke deelname metodes.

Volhoubaarheid is 'n algemene konsep, waar die sosiale-, ekonomiese- en omgewings-aspekte wat met ontwikkeling verband hou in ag geneem word, met die doel om die hulpbronne wat ons tans het te beskerm vir die toekoms. Tog is die werklike toepassing en implementering van volhoubare ontwikkeling uitdagend.

Die navorsing in hierdie dokument argumenteer dat publieke deelname tot die stigting en verbetering van volhoubare groen omgewings kan bydra. Die studie fokus eerstens op volhoubare ontwikkeling en die uitdagings en geleenthede wat daarmee gepaard gaan binne die Stadsbeplannings milieu. Tweedens word publieke deelname geëvalueer in terme van hoe dit gedefinieer word en hoe dit op 'n nasionale en internasionale vlak uitgevoer word. Laastens word die invloed van publieke deelname op die verbetering van volhoubare groen ontwikkelings na gevors, asook die bydraende effek wat tegnologiese innovasie op hierdie proses kan hê.

Die studie word saamgevat met voorstelle oor hoe om die sukses en die effektiwiteit van die huidige publieke deelname prosesse in Suid-Afrika op te hef en te verbeter. Dit word gebaseer op die resultate van verskeie internasionale perspektiewe, met die doel om volhoubare groen omgewings te verbeter en te bevorder.

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## **Table of Acronyms**

**Table 1: Acronyms.**

ABCD	Asset-based community development
CCI	Centre for Civil Initiatives
ECI	European Citizens' Initiative
EMF	Environmental Management Framework
EU	European Union
GIS	Geographic Information System
ICT	Information and Communication Technology
IDP	Integrated Development Plan
IVR	Interactive Voice Response
MCT	Multi-purpose Community Telecentre
MDGs	Millennium Development Goals
MMOGs	Massive Multi-player Online Games
NEMA	National Environmental Management Act
NGO	Non-Government Organisation
PPGIS	Participatory Planning Geographic Information Systems
SA	South Africa
SASDI	Southern Africa Sustainable Development Initiative
SEA	Strategic Environmental Assessment
SMS	Short Message Service
UN	United Nations
USA	United States of America
VR	Virtual Reality
VRML	Virtual Reality Modelling Language
XML	Extensible Markup Language

Source: Own creation (2013)

# **Chapter 1: Introduction**

## **1.1 Points of departure**

Public participation plays a cardinal role in decision-making and development processes in the 21<sup>st</sup> century, especially in terms of the bottom-up urban planning approaches. The importance and need of participatory planning approaches gained priority in recent years. The current advances in technology can further contribute to the objectives of participatory planning and strengthen current participatory approaches and methods.

Participatory planning can also contribute to the objectives of sustainable development, addressing the social, environmental and economic pillars of sustainable development. This research attempts to evaluate the current state of sustainable development on an international level, the need for sustainable development, the global attitude towards public participation and the advances in “newer” participatory methods with the end goal of reaching best-practice approaches which can be used in local context to contribute to overall sustainability.

## **1.2 Problem statement**

Public participation can be described as the process where the ideas, opinions and concerns of local communities are collected and analysed to be used as resources to improve plans and projects that interest and affect them (Ferguson & Low, 2005).

The implementation and enforcement of participatory planning is complex, resulting in various challenges. The scope and approach of participatory planning differ between different professions and disciplines, and also differ in terms of local context and international context and methods used.

“Traditional tools” and participatory methods defined by Al-Kodmany (2001:2) are found to be inflexible, less effective when the goal is to evaluate potential designs and it is difficult to predict the outcome of such processes during negotiation and discussion stages.

The complexities and challenges of modern environments (such as population increases, multi-dimensional planning approaches and increasing public needs and environmental challenges) emphasise the need for a new approach to participatory planning. Different, newer, techniques should be developed to increase effective public participation and therefore improve decision-making processes within the Urban Planning (as well as other) disciplines.

The worldwide hype and recognition of the importance of sustainable development should also be addressed as part of urban planning processes. Public participation is a tool identified that can assist in improving and contributing to sustainable development. Participatory planning has been proved to enhance social issues (identifying the actual needs of the communities) and enhance environmental issues (as communities prioritise the development of green spaces). The role and importance of public participation, along with recent advances in technology, should therefore be evaluated in an attempt to create sustainable green environments.

### 1.3 **Basic hypothesis**

According to (Munkittrick, 2011) the world is currently living in the Hybrid age, the fifth technological revolution, which is characterised by technological advances which have been used in many fields.

This reality has led to speculations regarding advanced technological initiatives in participatory processes and therefore the following hypothesis has been formulated: The use of newer, technologically-inspired participatory techniques will benefit public participation for all interested and affected parties within Urban Planning and other areas where the public is affected, considering the fact that the characteristics of modern society has changed during the past couple of decades. This improved public participation methods will also enhance the development of sustainable green environments, as participatory processes are found to prioritise social issues and community needs, along with environmental considerations (such as green environments) which the communities tend to value highly.

### 1.4 **Primary research questions**

- What is considered a sustainable development approach?
- What is participatory planning?
- Are there any advances in participatory processes?
- Can participatory planning processes enhance and contribute to create sustainable green environments?

### 1.5 **Aims and objectives of this study**

The theoretical founding and literature research aims to:

- Define a sustainable development approach in terms of social aspects, environmental aspects and economy.
- Define sustainable green environments in terms of the Urban Planning context.
- Understand participatory planning processes in terms of needs, roles and importance.
- Investigate the legislative and policy frameworks guiding participatory planning in South Africa.
- Investigate recent advances in participatory processes including technological innovation and the role of social media.
- Investigate the role of public participation in sustainable development approach and the creation of sustainable green environments.

The empirical research aims to:

- Investigate South African approaches towards participation (in different disciplines).
- Evaluate the development of technology-based initiatives in South Africa to enhance participatory planning approaches.
- Investigate international approaches towards participation.
- Evaluate the development of technology-based initiatives around the world to enhance participatory planning approaches.
- Compare local and international participatory planning processes in an attempt to identify best practices.

## 1.6 Method of investigation

This research included methods classified as qualitative research methods and quantitative research methods. A qualitative method aims to gather an in-depth understanding of certain processes or behaviours as well as the reasons behind executing these processes or behaviours. A quantitative method refers to empirical investigations using statistical, mathematical or computational techniques.

### 1.6.1 Literature Study

The literature study will commence by defining a “sustainable development approach” and the sustainable green environment as perceived from the urban planning context. The different characteristics of sustainable development will be explored as well as the different elements of sustainable green environments.

The literature study will furthermore exhibit and research numerous relevant aspects regarding public participation: the need for public participation, the role of public participation, who benefits from participation as well as the general importance of public participation. Different approaches regarding participatory planning will be examined and recent advances in participatory processes (technological advances) will also be discussed. These technological advances will entail the evaluation of the current state of technology in public participation techniques -- the different techniques currently used in participatory processes as well as the way in which each technique contributes to public participation. After executing the research just mentioned it will be possible to conclude whether public participation can enhance sustainable development. Upon investigating technological methods, a case study of Woolworths in South Africa will be investigated, illustrating the impact of social media as an informative medium between citizens.

In addition to the latter, literature and desktop studies will be undertaken to examine whether participatory processes can contribute to the effective creation of sustainable green spaces. The necessity of the role of public participation within the creation of these spaces will therefore be examined.

Case studies, a combination of qualitative- and quantitative research methods, will be presented and studied to provide insights regarding the effect of participatory processes on sustainable development:

- Bairnsdale aboriginal children and family centre – Usable spaces
- Eastern Scheldt in the Netherlands – Visual spaces
- Wal-Mart in Canada – Valuable spaces

It's very important to examine the relevant legislation and policies which guides participatory planning processes in South-Africa. Policies such as IDP's and EIA's will be evaluated in terms of their enforcement and guidance of implementation with regard to participatory processes in South-Africa.

### 1.6.2 Empirical study

Structured interviews will be held with Urban Planners in South Africa to get their input regarding the relationship between public participation and the sustainable development of green spaces. These experts are:

- Grobler Basson  
(Urban Dynamics, Cape town)
- Marike Lerm  
(Plan Active, Cape town)

To make the empirical study valid and as significant as possible it is important to investigate public participation from all possible angles to determine whether it can contribute to the enhancement of sustainable development. The following shall therefore be investigated:

International participatory planning approaches – the views and attitude of governments and local authorities in countries around the world regarding participatory processes will be collected by looking at case studies within certain countries. These case studies will be useful and will serve as reliable information regarding the approaches towards participatory planning on an international scale. Case studies were chosen carefully to illustrate how public participation was approached and executed successfully to gain valuable community input to improve the decision-making processes for the planning of the particular project. The following case studies were investigated:

- 2012 ERC of Bangalore – India.
- Bujagali Hydroelectric project – Uganda
- Kindergarten in Karlovac – Croatia

It is relevant to deduct if there is a trend emerging in third and first-world countries towards participatory processes. Analysing the trends in these countries will provide valuable insights to make recommendations at the end of this study.

Technological initiatives to enhance participatory planning on an international scale – It is necessary to investigate the state of technology utilisation within participatory planning in third and first-world countries. Again, international

case studies of the same countries will be investigated (1<sup>st</sup> and 3<sup>rd</sup>-world countries) to conclude whether technology plays an integrated role in participatory planning internationally. These case studies were chosen on purpose, because they show how technology was used effectively to execute successfully public participation and gain valuable community input. The following case studies shall be investigated:

- Irrigation canal – Thrissur (India)
- 2011 government elections – Uganda
- The Digital Administration programme – Denmark

Using a trend analysis method is also relevant in this segment. If there is a trend in the way third- and first world countries implement technology in their participatory processes it can be taken into consideration when making conclusions and recommendations at the end of the study.

South African participatory planning approaches – On a local level, it is of cardinal importance to investigate the state of participatory planning. This investigation will be executed with the use of structured interviews with experts in different disciplines that also utilise participatory processes, as well as sending out questionnaires to other individuals who will have knowledge of public participation. It will be clear from the interviews as well as the questionnaires what the current attitude is towards participatory planning. The questionnaires as well as the professional opinion of experts will provide enough information regarding the current state of participatory planning in South Africa. Structured interviews will be conducted with:

- Thinus De Jager  
(Plancentre Town & Regional Planning consultants, Potchefstroom)
- Liesbet Barratt:  
(Faculty of Health Science, North-West University, Potchefstroom campus)

Technology initiatives to enhance participatory planning approaches in South-Africa – To analyse accurately the use of technology in participatory planning in South-Africa, a case study will be investigated. The Vaalharts (Water Innovation Network) Project is a focus point of the Health Science department of the NWU PUK. The project focuses on rural health and well-being of the local community. Technological advances in participatory planning will be implemented in the area. Once these new techniques are running effectively it will serve as an example of how developed participatory planning is in South-Africa, regarding technological advances. The research method of observation was carried out during this investigation, visiting the Vaalharts project site close to JanKempdorp (Jan Kempdorp) in the North-West province, South Africa. Liesbet Barratt, mentioned above, is the project co-ordinator and she was interviewed to retrieve more information.

## **1.7 Delineation of the Study Area**

This study was not focused on a specific area but focused on the need for sustainability around the world, and the approach of public participation within different countries, including South Africa. The situation regarding

technological innovations within public participation processes around the world was also a focus point. The approaches mentioned in this study are thus applicable to any area in need of public participation processes. Various pilot and case studies were included to illustrate the participatory approach used in said study, irrelevant of the specific area or location.

### 1.8 Limitations of the research

This study addressed and evaluated participatory planning from the perspective of Urban Planning. It is recognised that other methods and approaches of public participation do also exist, and this study does not intend to bring a solution to complex, political processes in need of participation, but rather focus on presenting a possible solution to better and enhance participatory processes within the urban planning context in an attempt to create sustainable green environments.

### 1.9 Structure of the dissertation

The following is a summary of the structure and content of the remainder of the dissertation:

Table 2: Structure of dissertation

Chapter #	Title	Description
<b>Literature Study</b>		
<b>Chapter 1</b>	Introduction	<ul style="list-style-type: none"> <li>• Problem statement, hypothesis, methods etc.</li> </ul>
<b>Chapter 2</b>	Sustainable development approach	<ul style="list-style-type: none"> <li>• What is sustainable development.</li> <li>• Linking social, environmental and economic values.</li> <li>• Usable, visual and valuable spaces.</li> <li>• Pro-developmental – versus pro-environmental approaches.</li> </ul>
<b>Chapter 3</b>	Understanding public participation	<ul style="list-style-type: none"> <li>• Understanding basic participation concepts: Need, role, importance.</li> </ul>
<b>Chapter 4</b>	Recent advances in participatory processes	<ul style="list-style-type: none"> <li>• Advances in participatory processes regarding the use of technology.</li> <li>• Impact of these advances on sustainable development.</li> </ul>
<b>Chapter 5</b>	Participatory planning processes assisting in creating usable, visual and valuable spaces	<ul style="list-style-type: none"> <li>• Usable spaces – focus on social aspects.</li> <li>• Visual spaces – focus on environmental aspects.</li> <li>• Valuable spaces – focus on economic aspects.</li> </ul>
<b>Chapter 6</b>	Legislation guiding participatory processes in South Africa	<ul style="list-style-type: none"> <li>• IDP's, EIA's.</li> <li>• Other relevant acts (Petition act etc.)</li> </ul>
<b>Empirical Study</b>		
<b>Chapter 7</b>	International views regarding public participation	<ul style="list-style-type: none"> <li>• What is the attitude, views and approaches towards public participation.</li> <li>• Structured interviews with experts abroad</li> <li>• Case studies.</li> </ul>
<b>Chapter 8</b>	International context - Technology	<ul style="list-style-type: none"> <li>• Is technology used in participatory processes in</li> </ul>

## The role of participation and technology in creating sustainable green environments

	initiatives to enhance public participation	<ul style="list-style-type: none"> <li>other countries (1<sup>st</sup> and 3<sup>rd</sup> world countries).</li> <li>Case studies.</li> </ul>
<b>Chapter 9</b>	South Africa: Views regarding public participation	<ul style="list-style-type: none"> <li>The attitude towards public participation in SOUTH-AFRICA.</li> <li>Comparing different disciplines with each other.</li> <li>Structured interviews and questionnaires.</li> </ul>
<b>Chapter 10</b>	South Africa: Technology initiatives to enhance public participation	<ul style="list-style-type: none"> <li>How advanced is participatory processes in SA. Are there any initiatives in place to use technology in participatory processes to improve public participation?</li> <li>Structured interviews and questionnaires.</li> <li>Case study: Vaalharts (WIN project)</li> </ul>
<b>Conclusions and Recommendations</b>		
<b>Chapter 11</b>	Conclusions	<ul style="list-style-type: none"> <li>Research questions.</li> <li>Gap analysis.</li> <li>Best practice approaches.</li> </ul>
<b>Chapter 12</b>	Recommendations	<ul style="list-style-type: none"> <li>Improve the gaps.</li> <li>How to achieve best practice approaches in SA</li> <li>Groundbreaking example for SA</li> </ul>

Source: Own creation (2013)

### 1.10 Definitions

The following are important definitions of applicable terminology that were used in this study.

Table 3: Glossary.

<b>Public participation</b>	Process where the ideas, opinions and concerns of local communities are collected and analyzed to be used as resources to improve plans and projects that interests and affects them.
<b>Computerised methods</b>	Using technological advancements to create new methods and tools to communicate ideas and visions with the public.
<b>Sustainable development</b>	“Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.”
<b>ICT tools</b>	Devices and objects used in information and communications technology. Tools include cell phones, computers, televisions, radios and laptops.

Source: Ferguson & Low (2005:7); Al-Kodmany (2001:1); Hauff (2007:2)

# **Chapter 2: The sustainable development approach**

## **2.1 Introduction: Human history – the creator of the need for sustainable development**

Sustainability and development are two well-known terms used in the modern era. There is a direct correlation between the two. Development barely takes place without the word “sustainable” being mentioned.

According to Harris (2000:1) development is a relatively new term which has been used abundantly since the second half of the twentieth century. Before those times the idea of development was merely something to talk about. Many countries were ruled by colonialists, an elite group who mostly focused on their own fortune and welfare. These colonialists who ruled countries did not care if there was development or not, as long as they could be wealthy and happy and remain in power. Little provision was made for economic and social advances, a phenomenon called the developing world. Colonial regions operated primarily to increase imperial powers with cheap labour and raw materials. Therefore development did not escalate in those times (Harris, 2000:1). Although rich countries such as Japan, the USA and England strived for certain goals such as economic growth and modernisation, development (infrastructure and housing) could not improve because there was little attention paid to equity and social justice.

At the end of World War II, policies regarding equity and social resources improved dramatically. Social and economic circumstances improved as colonial power depleted across the planet. As years passed this in turn meant that power shifted from elite individuals to governments. Governments aim to uplift a country as a whole and to ensure that it grows and gets stronger. Within time it became clear that development (physical and social) was crucial in empowering a country in terms of social (equity) and economic factors (Gross Domestic Product).

The competition between nations intensified as years passed and therefore development progressed dramatically. Democracies became more intent on protecting the rights of the average citizen. Within these democracies development on all levels was boosted. Physical development increased with the aim of also empowering the people on a social level. The construction of houses intensified, public transportation systems enjoyed more attention and almost all infrastructures were upgraded to contribute to social needs. At the same time all of these physical developments had a positive effect on a country's economy.

A new form of power was emerging for governments and in some parts of the world this growing competition resulted in serious friction between nations, for example the Cold War which started after the Second World War and essentially ended in 1989 (Mueller, 2004:609). According to Mueller (2004:609) the Cold War was “about an ideological conflict in which the West (USA) saw the East (Soviet Union) as committed to a threateningly expansionary ideology.” Hence the West, ruled by capitalism, was not in agreement with the communist East. Because the USA and the Soviet Union were the world's strongest nations (Anon, 2010) there was a battle for superiority. Brick *et al.* (1999) states that “The Cold War was a decades-long struggle for global supremacy” which means that, in the light of what has been discussed so far, development rocketed in those times.

After the Second World War, in the midst of the Cold War and international competition for supremacy, the methodology regarding development shifted dramatically from a traditional approach to a mass-consumption approach (Harris, 2000:18). This meant that overall development escalated to a next level. For years this was an accepted approach, because it led to massive improvements in terms of technology and infrastructure. Because of increased job opportunities and improved housing, overall welfare was also improved.

This reality of mass-development carried on for decades, until social scientists, political experts, cultural critics and environmentalists realised that this view was busy transforming the world on a large scale, and not in a positive way (Strange & Bayley, 2008:39). Many issues (as illustrated in Figure 1) came to the attention of these experts and it was clear that these issues came into existence, because of the transformation the world had undergone.

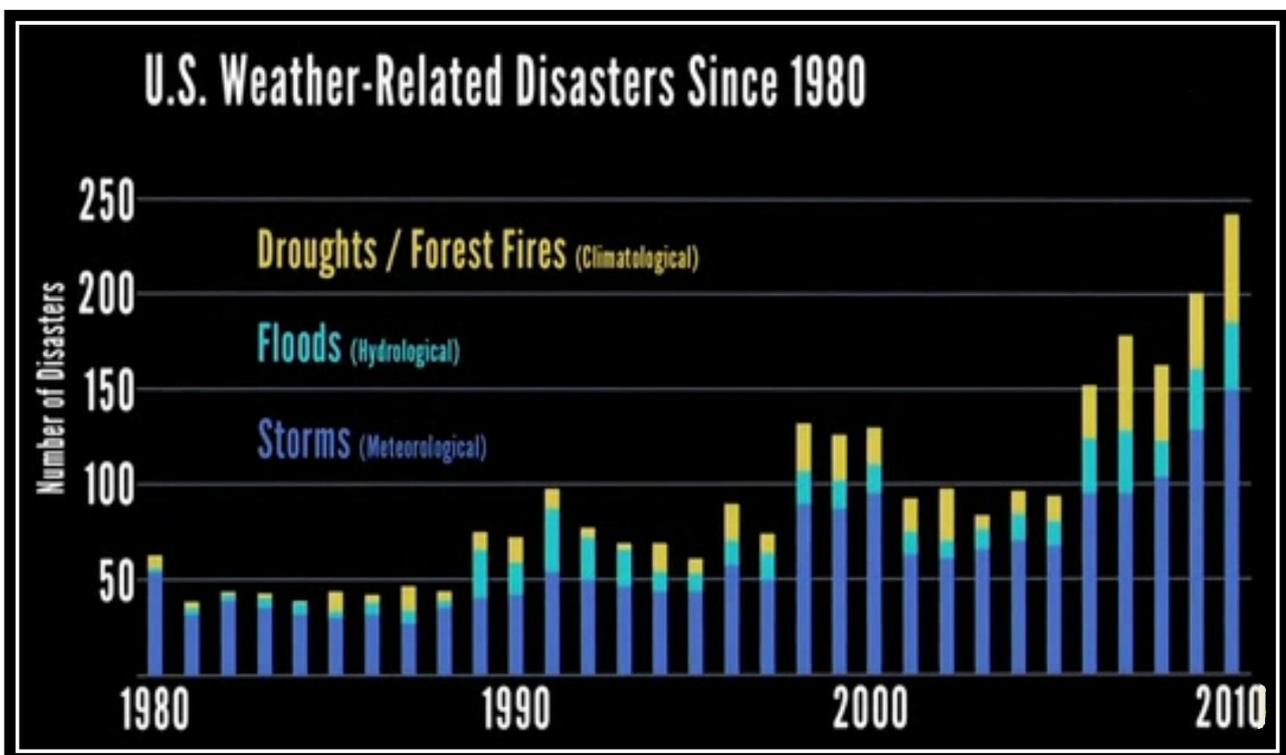


Figure 1: U.S. Weather related disasters since 1980

Source: Chasing Ice (2012)

By evaluating the history of mankind towards development (as discussed above) it is not very presumptuous to conclude that mankind was/is responsible for the changes seen in Figure 1. Obviously the world cannot keep on functioning as it has done for the past three decades.

Action was taken and during the process of discovering viable solutions, the term “sustainable development” emerged and captured the immediate attention of scientists, sociologists, economists and environmentalists across the world.

## 2.2 Understanding sustainable development

As already mentioned in the introduction the term “sustainable development” has captured the attention of many experts around the world and today it is a widely known term.

According to Natural Capitalism (2013), sustainability addresses human and natural systems, such as social values, social justice, biodiversity and ecosystems. Furthermore it entails economic systems, such as profits, returns and market viability. It therefore implies productivity while still maintaining proficiency and efficiency for long-term goals. Sustainability is something the modern world desperately needs. For decades only productivity has been the focus point, but efficiency has been undermined. Thinking about long term goals and achievements has never enjoyed much attention.

Sustainability consists of mainly three relevant factors which have to function properly for anything to be considered “sustainable”: Social factors, economic factors and environmental factors (Figure 2) (Harris, 2000:6):

Social factors – Equity must be pursued, political participation by societies, gender equity and decent provision of social services such as education and health.

Economic factors – Goods and services must be produced on a constant basis, sectoral imbalances should be avoided to stop damages to agricultural/industrial production. Debt should be avoided.

Environmental factors – Resources should be stable and available, but should not be over-used. Maintaining biodiversity and atmospheric stability. Renewable resources should not be exploited and non-renewable resources should be protected.

These factors will be discussed further in section 2.7:

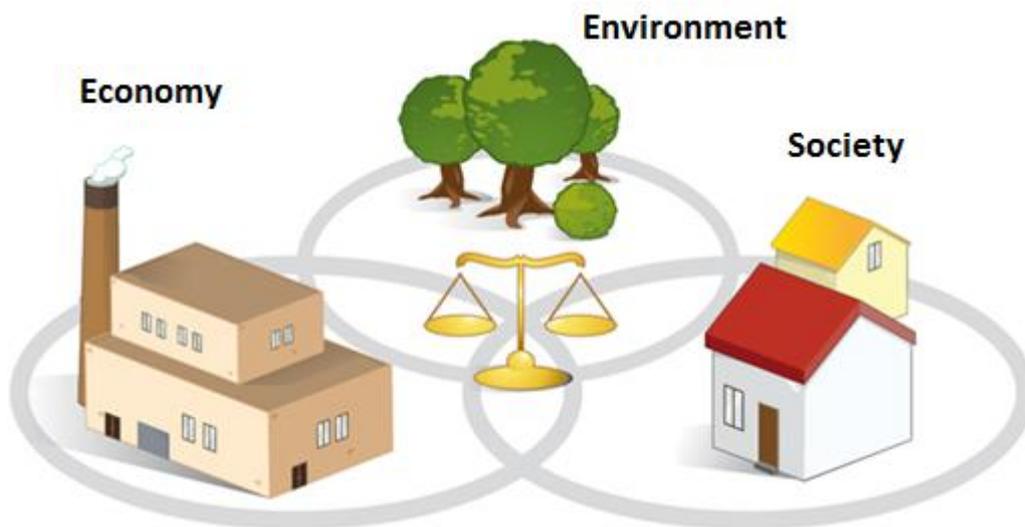


Figure 2: Three factors of sustainability

Source: Polyurethanes (2011)

Considering the above definition, sustainable development can in turn be defined as “development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (Hauff, 2007:2). This is the official definition regarding sustainable development, originally found in the Brundtland report. It is mostly

used, because it indicates that development should be implemented in such a way that it has little negative effect on future generations.

### 2.3 The need for sustainable development

As mentioned before, sustainable development entails “development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (Hauff, 2007:2). For something to be sustainable it needs to be effective in many areas. Social, environmental and economic aspects are all areas which need to be implemented and interlinked for any development to be classified as sustainable (Figure 2).

The question might be posed: “Is there really a need for sustainable development?” Some might state that there is indeed a need for sustainability, whilst others might argue that the world has not progressed or evolved far enough to be in a state of panic and immediate change.

As already mentioned the three pillars of sustainable development consist of social, environmental and economic factors. These three pillars need to be balanced within any development in order to ensure sustainable development that will result in sustainable green spaces. Accordingly these three pillars will be discussed in context of this research.

#### 2.3.1 Social pillar

Society is extremely important when thinking of sustainable development. If societies are not functioning well it creates turmoil within other processes where society is needed, such as election processes. The social pillar is focused on the individual and societal benefit, generally measured in terms of social equity – providing a social platform for all citizens. Social equity has improved in the 21<sup>st</sup> century, with the end of colonialism and the introduction of democracy and the average person has been taken into consideration by giving him/her a voice in most parts of the world. But in the social field many other problems have arisen. The human population has substantially increased, as shown in Figure 3 which implies that there are many more mouths to feed, more houses to be built and more voices to be heard.

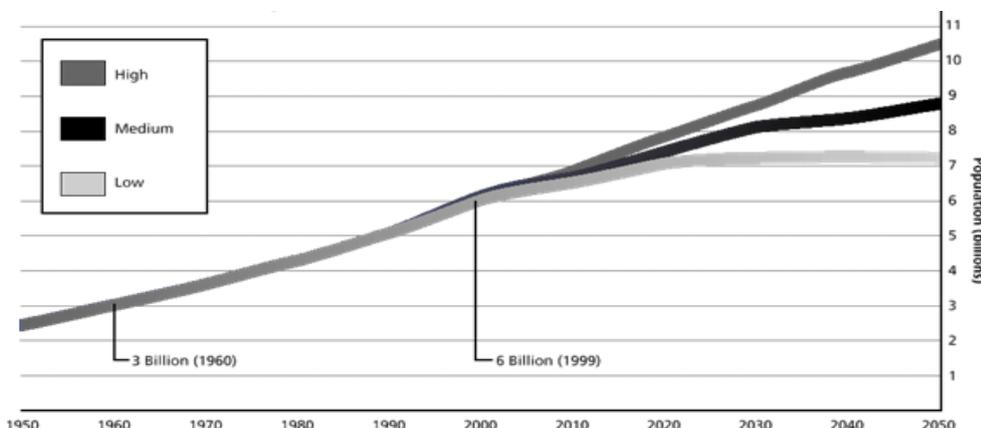


Figure 3: World population growth

Source: United Nations (1998)

It poses a challenge to governments. With the increasing size of world populations there are also other problems that arise.

Sustainable development aims to fight poverty. It is one of the UN Millennium Development Goals, which will be discussed later in section 2.6.2 of this document. Poverty is thus a relevant factor when it comes to the social aspect of sustainability, and one would think that where sustainability is found there will be no, or few, traces of poverty. Figure 4 illustrates the number of people living at different poverty levels, and it displays shocking results, results which depict the reality of the world. With such statistics it cannot be denied that sustainability has not yet been fully reached.

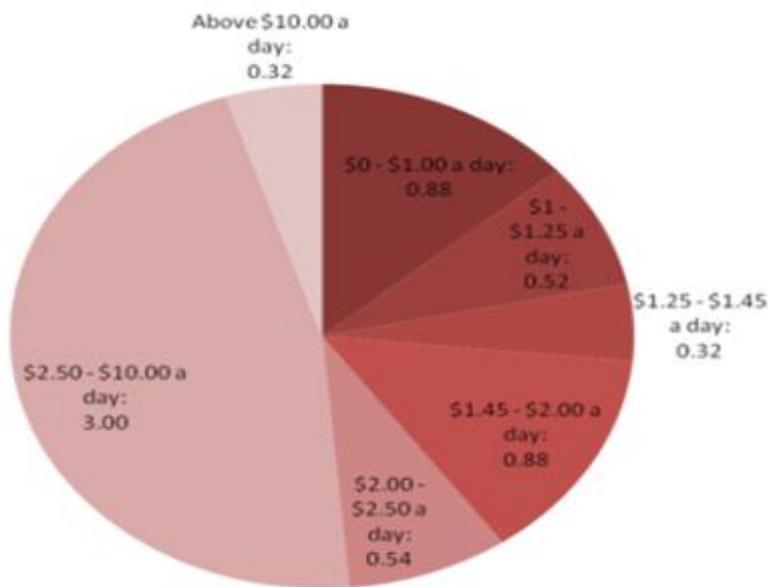


Figure 4: Number of people living at different poverty levels

Source: McGrath (2008)

Equity is an extremely important aspect when it comes to the social pillar of sustainability. Governments should strive to reach equity in the form of health, income and political influence. With the rise in human populations all across the planet it becomes increasingly difficult to achieve and maintain social equity in all its forms. Figure 5 below illustrates the income distribution on a global scale. It would seem that be seen that there is barely any equity. In simple terms it means that the rich are thriving and drowning in their welfare, while the poor are struggling to even put food on the table.

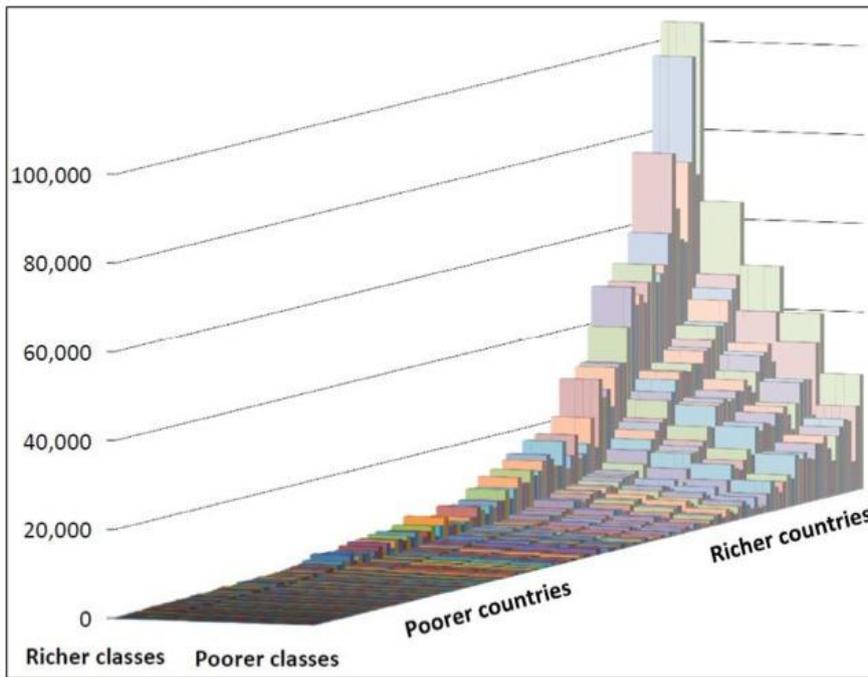


Figure 5: Visualisation of global income distribution

Source: Ortiz & Cummins (2011:4)

In context of this research, the social pillar is crucial. There is a need for public participation (as will be discussed in the following chapter), as public participation is directly linked to the social pillar of sustainable development. For the social pillar of sustainability to be effective the public needs to be reached in some way to get them involved in decision-making processes. As seen in the examples above there is inequality around the world, which leads to high poverty levels and uneven income distribution. By getting communities more involved around the world, they will become more empowered (Petermann & Troell, 2007) with skills and the knowledge to become more independent, therefore leading to socially sustainable lifestyles. Public participation can therefore possibly improve the social pillar of sustainable development.

### 2.3.2 Economic pillar

The world's economic state is extremely important when the topic of sustainability comes under the magnifying class. The economy is a reality which mankind created long ago when they started exchanging and trading products amongst each other. It has grown since then into the economy known today. To be economically sustainable, amongst other things, means to produce goods and services on a continued basis by not falling into debt, because debt is a burden and can create imbalance within the economic sector. Furthermore economic sustainability means to be as productive as possible while using as little as possible resources and not causing pollution. It can easily be assumed that most countries would be able to function on their own by producing and selling goods and services within their own boundaries by utilising their own resources through knowledge gained locally. But this is not what is happening in reality. Today countries trade goods and services with each other and they buy goods from each other. From a business view this makes sense, but the problem is that a country sometimes purchases products from other

countries on credit, which means they do not pay immediately, but they intend paying later. This has proved to create debt within countries. Figure 6 illustrates the current situation regarding countries with debt.

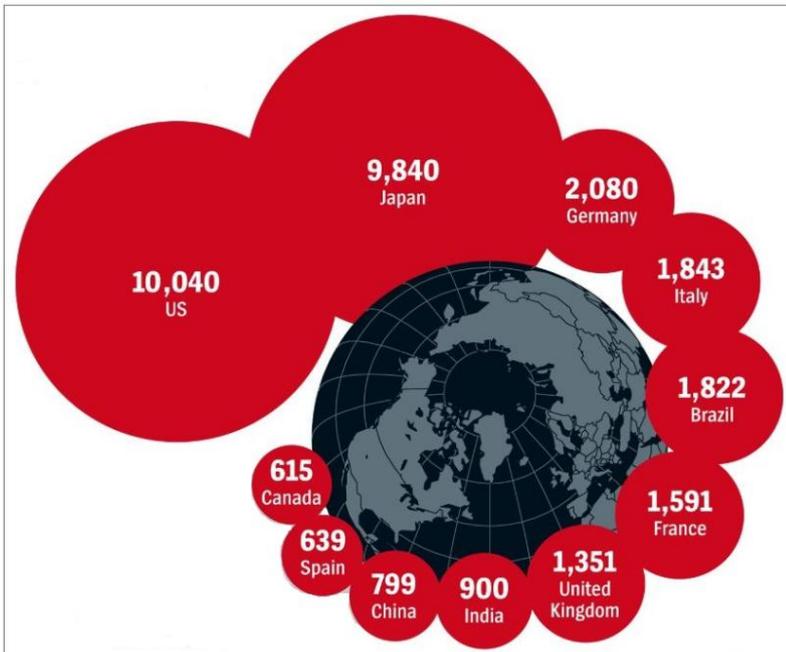


Figure 6: Government debt in 2010 (billions of Euros)

Source: Anon (2011)

According to Tatum (2013) economic sustainability also entails the effective use of available resources in the best possible way to gain maximum possible output. Resources should only be utilised if they can be used efficiently and responsibly. True economic sustainability not only involves that a business is making a profit, but more importantly, that a business is not causing environmental damage. It should furthermore also provide long-term benefits for a business or country, therefore ensuring that a business can function over a number of years, whilst still generating a profit (Tatum, 2013). Figure 7 illustrates a simple example of how a business can be economically sustainable:



**Figure 7: Sustainability by recycling resources**

Source: Sumitomo Forestry (2011)

The economic climate is crucial for any country. A country will always want its economy to be thriving, but unfortunately it is not always the case. A region, state, province or country must therefore try everything in its power to boost its economic situation. Figure 6 shows that the whole world struggles with debt. Expenditure by governments need to be reduced where possible. Public participation can help in this regard. By including the public in important decisions the social capital of an area is increased. Communities, on a large and small scale, will adopt a positive attitude toward the areas they reside in when they are included in decision-making processes. They will be willing to invest more in these areas, resulting in the local municipalities and the government having fewer costs and lower expenditures. Therefore it is conclusive that public participation, if implemented effectively, can have a positive outcome on the negative economic environments found around the world.

### 2.3.3 Environmental pillar

Some scientists believe that this is the most important aspect of the three main pillars of sustainable development. It is one of the UN Millennium Development Goals (which will be discussed in section 2.6.2 of this document) and it attracts the most attention all around the world.

The environment is a precious gift which we use on earth to stay alive. The ecology of the world was never a focus point, but mankind has put it in jeopardy due to mass-development. Therefore environmental sustainability is crucial. It involves conserving and maintaining natural resources, such as forests, oil and clean water. Protecting plant and animal species also forms part of environmental sustainability.

The use of natural resources plays an important role within environmental sustainability. It correlates with the latter issue of economic sustainability explained above (Figure 7). Non-renewable resources receive attention, because they have to be maintained and managed intelligently to keep them safe for future generations. Figure 8 illustrates the reality regarding crude oil (a non-renewable resource) around the world.

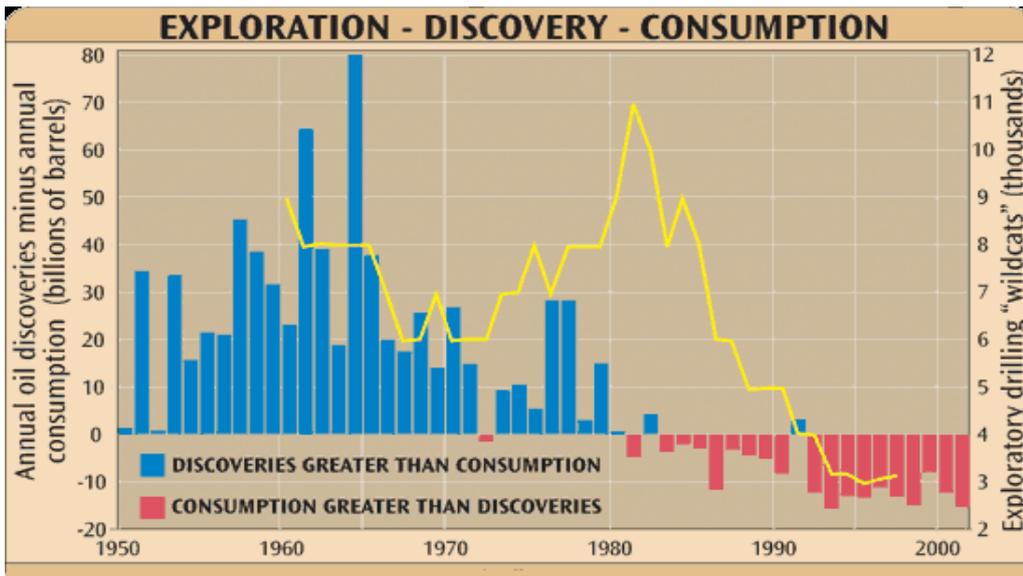


Figure 8: Crude oil discovery (availability) vs. Consumption over time

Source: Earth (2013)

From the above figure it can be seen that as the decades passed it became increasingly difficult to find and extract oil reserves around the world, while the consumption thereof kept on increasing. It is only logical to deduct the fact that oil reserves will, in time, disappear due to over-consumption.

Oil is not the only natural resource of which the levels are decreasing. There are other resources which suffers due to unsustainable management. Figure 9 below illustrates that the production of natural gas has already started to decrease, because there are fewer gas reserves left to extract.

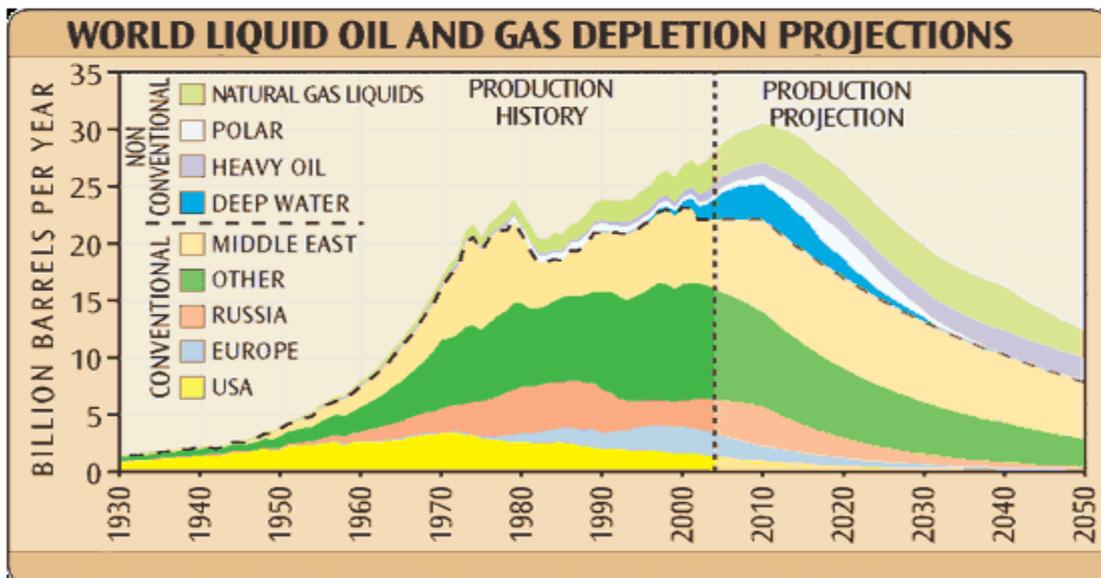


Figure 9: Projected production of oil and gas reserves

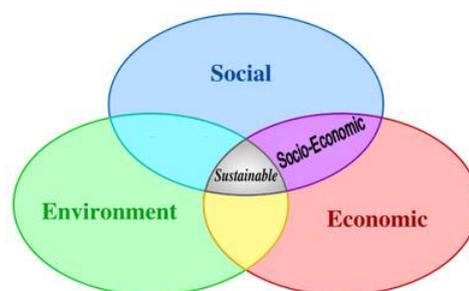
Source: Earth (2013)

## The role of participation and technology to create sustainable green environments

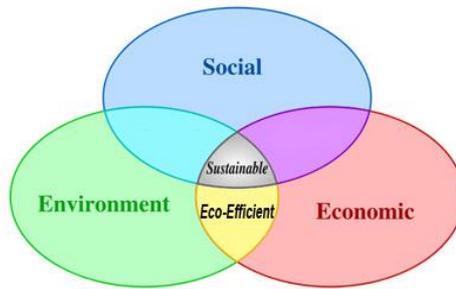
These graphs illustrate the reality regarding natural resources: They are decreasing. Because they are decreasing it means there are limited effective environmentally sustainable initiatives in place to fight diminishing resource levels. Mother Nature cares for itself, but since mankind has intervened the overall function of Mother Nature has been disturbed (Haque, 2008). There are many other aspects left to investigate to define the current state of environmental issues and how environmentally sustainable the world currently is. From the little evidence showed above it is easy to conclude that our planet is struggling as it is and more effort needs to be injected in restoring our environment. Therefore, in the context of this research, it is crucial to focus on the security of the environmental pillar of sustainability. Because the health of the environment is declining at an alarming rate, finding solutions to counter or slow down the whole process is imperative. The effect of public participation on environmental considerations therefore needs to be investigated. When informing the public about developments, they mostly want the developments to be more green and aesthetic, because they mostly support environmental protection (Cobey et al., 1991:1). Cobey et al. (1991:1) furthermore state that one can “definitely conclude that respondents will support environmental protection even at the expense of economic growth.” In contrast, local municipalities may tend to be more interested in quantity and profit, developing more houses, thus not taking the environment into consideration. By implementing public participation in development processes, the importance of environmental issues will be emphasised, resulting in the automatic development of environmentally friendly areas.

Figure 2 illustrates how to achieve a state of sustainability: All three pillars of sustainability should be interlinked which will result in an ultimate form of sustainability. It is necessary to be aware that there are other smaller linkages within these three pillars which should also be explained in order to get a better understanding of what is necessary for the three main pillars to link with each other:

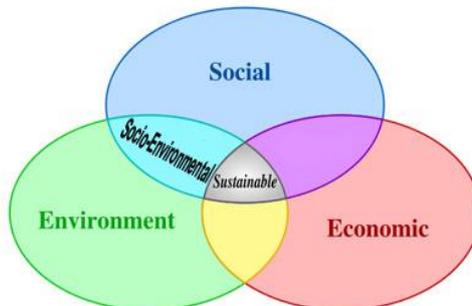
- 1) Socio-Economic Development (SED): Linking economic and social factors. SED means to pursue economic growth, while providing benefits to the local community. It involves access to the workplace and giving communities the skills to contribute to the economy (SEDISA, 2013). SED aims to teach people how to fish rather than giving them a fish to eat.



- 2) Eco-Efficient development: Linking economic and environmental factors. Over the past couple of decades mass production and industrialisation caused environmental degradation. Eco-Efficiency is therefore based on creating goods and services to satisfy the needs of communities while using progressively fewer resources. At the same time this will result in less pollution and waste (Green Growth, 2012).



Socio-Environmental development: Linking social and environmental factors. There are many opinions surrounding this system. According to Musters et al. (1998:244) Socio-environmental systems are complex and not easy to define, because they have many different and unknown states and each person involved within a socio-environmental system interprets it differently. Ideally such a system strives to enhance harmony between society and the environment they live in. A successful socio-environmental system will be when citizens can use, maintain and live within their natural environments. A relationship between man and his environment should exist where mankind takes care of the environment and the environment takes care of mankind.



There are thus a series of links needed to create a sustainable green environment. It is “easier” to integrate two of the three pillars of sustainability, but to link all three can be more difficult. But it is possible and there are many projects and organisations in the world today that strive to function on a sustainable basis, leading to a better and healthier world.

There is indeed a need for sustainable development, and for the three pillars to be balanced. Many initiatives and projects have been proposed and implemented to address the issue of sustainability, as will be seen in the next section.

## **2.4 Pro-developmental vs. Pro-environmental approaches**

Pro-development approaches typically involve large capital investments in infrastructure (roads, irrigation networks, etc.), industry, education, and financial institutions (The free dictionary, 2013). In simpler terms it means that it

## The role of participation and technology to create sustainable green environments

includes construction and expansion of infrastructure and economic activities. This approach is the approach which has mainly been followed around the world thus far. As already stated it has had negative repercussions for the world today, but it also led to very positive discoveries and other developments. Therefore it might be concluded that development does not necessarily have a negative impact on society.

The environmental approach coincides with conservation of the natural world. Halpenny (2005:1) defines pro-environment behaviour as the action of an individual or group that advocates the sustainable or diminished use of natural resources. This approach therefore seeks to conserve natural resources and protect them for future generations (non-renewable resources). As decades passed, many organisations and individuals started to accept and adopt this approach, because the value of natural resources was expressed by scientists and environmentalists, especially since natural resource reserves have been depleted over the past couple of decades. The pro-environment approach is a relatively new approach, but it seems to be a very relevant and necessary approach.

From what has already been said it seems evident that the pro-development approach is affecting the planet in a negative manner and that the pro-environment approach is affecting the planet in a positive manner. Many would thus suggest removing the pro-development approach completely and solely adopt the pro-environment approach. Although the approach may be positive, the advantages and disadvantages of both approaches should first be assessed:

**Table 4: Advantages and disadvantages of the pro-development and pro-environmental approach**

	<b>Advantages</b>	<b>Disadvantages</b>
<b>Pro-Development approach</b>	More beneficial to 1 <sup>st</sup> world-countries (USA, UK, Germany etc.), because they can sell more products to newer markets	Not beneficial to 3 <sup>rd</sup> world-countries, because local brands and businesses in these countries cannot compete with the economic strength of rich countries
	Consumers gets a much wider variety of products to choose from	Increases gap between poor and rich
	Job creation	Environmental damage and diminishing natural resources
	Better infrastructure	Lower quality of life
	Effective public transport	More pollution
	Due to increased competition, consumers can get products at better prices.	Social problems like urban sprawling
	More discoveries are being made, resulting in better products (e.g. Improvements in technology)	Leads to habitat destruction of many plant/animal species
<b>Pro-Environment approach</b>	Conservation of natural resources for future generations	Slower progression in terms of development and new inventions being made
	Cleaner environments (less pollution)	Difficult to implement, because it requires a change of attitude and lifestyle for most people

## The role of participation and technology to create sustainable green environments

	Save various plant/animal species	Conservation is not going to solve the issue of increasing human populations
	Better quality of life for all people	By protecting sensitive areas there may be a possible elimination of desired sites to build homes, creating risks for homeowners and developers
	New economic opportunities: Investments in natural infrastructure and sustainable agriculture as well as in fishing and forestry	
	Reduces risk of climate changes and stops the effects of global warming	

Source: Own creation (2013)

The above table illustrates that both approaches have their advantages and disadvantages. If the pro-development approach is solely to be followed, as the case has been since World War II until recently, many disadvantages will arise: Increasing inequality between rich and poor people, lower quality of life, air pollution, climate changes and diminishing natural resources. Many of these disadvantages have already been experienced in this time we live in. Despite the advantages that this approach produces, the disadvantages are too serious to ignore. In the long run it is not beneficial to our planet to adopt and exercise this approach alone.

The pro-environment approach is quite different from the pro-development approach in the sense that it focuses a lot on conservation and it's a more conservative approach. One would think that implementing this approach alone would be more beneficial to the world than the former approach. This is in fact true, but we live in a world striving for excellence and as Pro-development approaches typically involve large capital investments in infrastructure (roads, irrigation networks, etc.), industry, education, and financial institutions . In simpler terms it means that it includes construction and expansion of infrastructure and economic activities. This approach is the approach which has mainly been followed around the world thus far. As already stated it has had negative repercussions for the world today, but it also led to very positive discoveries and other developments. Therefore it might be concluded that development does not necessarily have a negative impact on society.

The environmental approach coincides with conservation of the natural world. Halpenny defines pro-environment behaviour as the action of an individual or group that advocates the sustainable or diminished use of natural resources. This approach therefore seeks to conserve natural resources and protect them for future generations (non-renewable resources). As decades passed, many organisations and individuals started to accept and adopt this approach, because the value of natural resources was expressed by scientists and environmentalists, especially since natural resource reserves have been depleted over the past couple of decades. The pro-environment approach is a relatively new approach, but it seems to be a very relevant and necessary approach.

From what has already been said it seems evident that the pro-development approach is affecting the planet in a negative manner and that the pro-environment approach is affecting the planet in a positive manner. Many would thus suggest removing the pro-development approach completely and solely adopt the pro-environment approach.

Although the approach may be positive, the advantages and disadvantages of both approaches should first be assessed:

Table 4 shows, this approach also has its disadvantages that cannot be ignored.

An optimal solution will not be found in one or the other, but by combining the two approaches. Balancing the extent to which each approach is utilised can lead to a better, more sustainable solution.

Ethiopia is a third-world country in Africa. People living there do not possess all the tools and technology to build houses and other developments. They use primitive tools and use raw materials to build houses. One of the resources they primarily use to build houses are trees. But according to Gebreegziabher *et al.* (2010:1) trees have multiple purposes in Ethiopia. They provide social as well as environmental benefits. Trees are used firstly as the material to build houses and other structures. Wooden products are further carved and sold for income. These are the economic benefits it brings. From an environmental point of view the trees are planted to decrease soil erosion and degradation. Ethiopia is situated high above sea level (Alkorta-Aranburu *et al.*, 2012). At these high altitudes there is not much oxygen in the air and the trees play a fundamental role in providing oxygen for citizens.

If the local citizens of Ethiopia would adopt the pro-development approach solely their economy would improve for a while and houses would be available for many, but soil erosion and degradation would arise over a matter of time, which is not good in the long term.

If, on the other hand, they followed only the pro-environment approach, there would be no soil degradation, more oxygen in the air, less pollution and the lands would even look aesthetically more beautiful, but the economy of the country would suffer more. Very few trees would be available for house production. More people would be homeless. Ethiopia would therefore not really be growing stronger in relation to other countries.

But by combining the two approaches and getting the balance right will lead to better, even optimum results. By executing very good management, trees can be conserved and reproduced, while at the same time allowing a portion of trees to be cut down for development purposes. This is an example of a sustainable approach.

### **2.5 Pilot study of the impact of a sustainable development approach**

Khayelitsha is a rural low income neighbourhood in the Western Cape in South Africa. It has been characterised by urban sprawl and bad living conditions. It is unsustainable due to the poverty, diseases and pollution (Kuyasa , 2009).The Kuyasa Low Income Housing Energy Upgrade Project was created by the Cape Town City Council and was launched in June 2003. Its goal was to provide low income houses in Khayelitsha with energy efficient lighting. It involved the installation of renewable and efficient energy, such as solar panels, in low income houses. Kuyasa (2009) states that it is the first project of its kind in Africa. It has therefore been declared as a “golden standard clean development mechanism project” by the United Nations.

In terms of the three pillars of sustainable development the project led to the following improvements:

- Social:
- 1) Improved health
  - 2) Created employment opportunities

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- Economical:      1) Homeowners save up to 40% on electricity bills  
                         2) Because of reduced electricity bills, there is more income available to buy other necessities.
- Environmental:   1) Reduced the utilisation of fossil fuels for energy, which resulted in a reduction of greenhouse gasses (these gasses contribute to global warming).

It is clear that sustainable green environments can exist only if social values, economic growth and environmental conservation can be interlinked. It may seem like a difficult task, but with the correct management it can be achieved with staggering results. In section 2.4 where the principles of pro-development- and pro-environment approaches were investigated the conclusion was made that a combination of the two approaches is needed to achieve more sustainable results. Kuyasa is in this sense an example of this phenomenon. If the Cape town City Council followed a purely pro-development approach, they would have built many low-income houses to provide shelter for the people hoping, in turn, that the new residents of the houses would be positive and in better shape to work effectively, providing an economic boost to the area. On the other hand, if they only followed a pro-environment approach it could perhaps have led to the construction of much fewer houses or only the restoration of the existing houses. It is not the worst possible outcome, but it is not optimal. By combining the approaches more inhabitants can be provided shelter, while at the same time minimising the effect of the new development on the environment due to the solar panels provided.

Kuyasa is an example of what the benefits can be if sustainable development is implemented. The managers of this particular project realised that all three pillars of sustainability should be addressed and linked, while balancing economic and environmental issues, to create a better functioning neighbourhood that simultaneously benefits the community, improves the economy and protects the environment.

### **2.6 Initiatives implemented to improve sustainable development**

The global need for sustainable development led to numerous initiatives, policies and projects being proposed and implemented to reduce the damaging effect man has had on society and the ecology of our planet over the last couple of decades.

The following are the most common initiatives which have been implemented to improve sustainability, as most relevant to this research:

- ✿ The UN Habitat Agenda (International)
- ✿ The UN Millennium Development Goals (International)
- ✿ SASDI – Southern Africa Sustainable Development Initiative (National)

These initiatives will be described accordingly.

#### 2.6.1 UN Habitat Agenda

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The UN Habitat Agenda was established in 1996. It was compiled following the Habitat II conference which was held in Istanbul that same year. Its goals and recommendations were adopted by 171 countries around the world. It focuses substantially on the improved quality of human settlements ultimately through sustainable development (UNHabitat, 1996:1). The vision of this initiative can be summarised as follows: "There is a sense of opportunity and hope that a new world can be built, in which economic development, social development and environmental protection as interdependent and mutually reinforcing components of sustainable development can be realised through solidarity and cooperation..." (UNHabitat, 1996:1).

The document starts off by discussing the problems we are facing which bottleneck us, thus keeping the world from developing in a sustainable fashion. It states that to overcome these problems and to improve sustainability, the challenges cities and towns currently face should be identified (UNHabitat, 1996:3). It indicates vulnerable groups who need attention. These groups include children, indigenous people, women and disabled people. According to the initiative all people, especially those living in poverty, should participate equally in all activities.

The UN Habitat agenda furthermore introduced certain goals and principles which all fall under the three pillars of sustainable development:

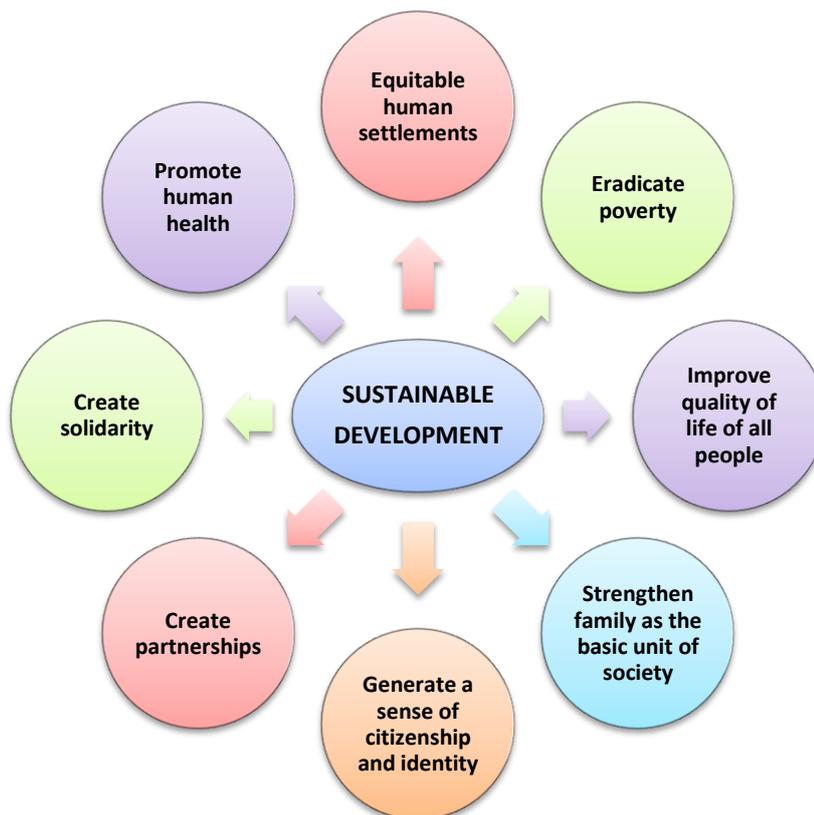


Figure 10: Goals of the UN Habitat Agenda

Source: UNHabitat (1996:7-10)

These goals are aimed specifically at improving sustainability in all parts of the world. It addresses the main problems currently being experienced and if these goals are pursued by the 171 countries which adopted the UN Habitat Agenda, a change will probably be evident in the future. After being established in 1996, many countries have

benefitted from the UN Habitat Agenda. Table 5Error! Not a valid bookmark self-reference. summarises some of the efforts made in different African countries due to the UN Habitat Agenda.

Table 5: Influence of the UN Habitat Agenda in Africa

	Cameroon	Senegal	Ethiopia
<b>Efforts due to UN Habitat Agenda</b>	European Union helped Cameroon to devise a national strategy to reduce poverty in all the urban areas. This process is still ongoing.	The city Louga has been supported since 2001 in an attempt to improve urban mobility, decrease HIV fatalities, improve community based solid waste management and creating working groups.	UN Habitat Agenda resulted in the identification of sustainable urban development intervention areas which led to the preparation of strategies to enhance sustainable development.

Source: UNHabitat (2001)

All the goals mentioned in Figure 10 are very important and if they can be achieved in a country, there is an increasing probability that the sustainability of the particular country will improve dramatically. But achieving these goals will most certainly be a difficult task. There are many variables to take into account which will make the realisation of these goals very difficult, such as the lack of finances and other resources, cultural differences, administration and following all the necessary legal processes. As said earlier, these goals fall under the three pillars of sustainable development, especially the social pillar. It has already been explained that public participation can support and improve all three pillars. This consequently means that public participation will also possibly be able to assist in achieving these goals.

### 2.6.2 The UN Millennium Development Goals

The MDG's (Millennium Development Goals) are eight goals that were established in 2000. The aim is to achieve these goals by the year 2015. All the UN member states (193 in total) and 23 other international organisations have accepted these goals and agreed to achieve them by 2015. These goals ultimately aim to improve sustainable development, because it focuses on social, environmental and economic issues. Figure 11 below shows the eight MDGs:

## The role of participation and technology to create sustainable green environments

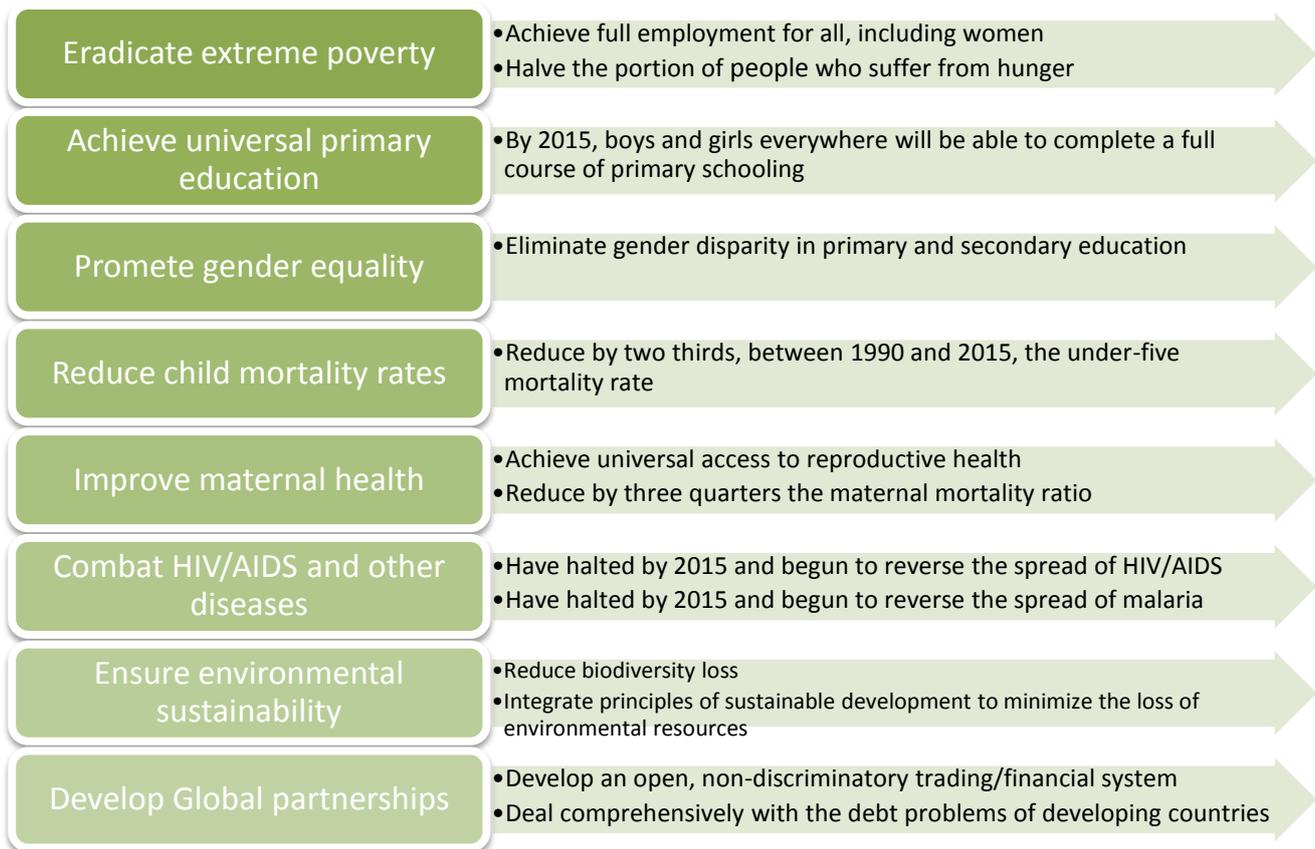


Figure 11: Eight UN Millennium Development Goals

Source: MDG (2013)

According to Hulme (2007:2) the MDG's are an important promise to the world. It's an agreement to reduce human deprivation and poverty through internationally collaborative actions. Many of the MDG's are basically the same as the goals identified in the UN Habitat Agenda.

It is significant that the MDG's are all built on the three pillars of sustainability. Goals one to six fall under the social pillar, goal seven under the environmental pillar and goal eight under the economic pillar. As explained earlier, public participation can be of valuable assistance when trying to build these pillars and improve sustainability in an area. Therefore public participation can contribute to reaching these goals.

### 2.6.3 SASDI - Southern Africa Sustainable Development Initiative

SASDI is a non-profit foundation which is based on Christian principles and that focuses on disadvantaged communities in Southern Africa. Its main aim is to implement social investments in these areas. This foundation works with many different stakeholders, each providing something valuable to form this effective initiative. It seeks to reward organisations or individuals in disadvantaged communities who do excellent work within the community. Small businesses in townships can also qualify for these rewards. They reward these particular people by either improving or expanding their facilities with the hope that the general community will in turn also benefit from these rewards (SASDI, 2013).

## The role of participation and technology to create sustainable green environments

Projects are chosen carefully to help overcoming developmental challenges in South Africa such as poverty and discrimination. Special attention is given to:

- ✿ Community leadership development
- ✿ Youth leadership development
- ✿ Social entrepreneurial leadership development and
- ✿ The advancement of human rights and social justice

It is important that each project has the following goals which it needs to achieve in order to be successful:

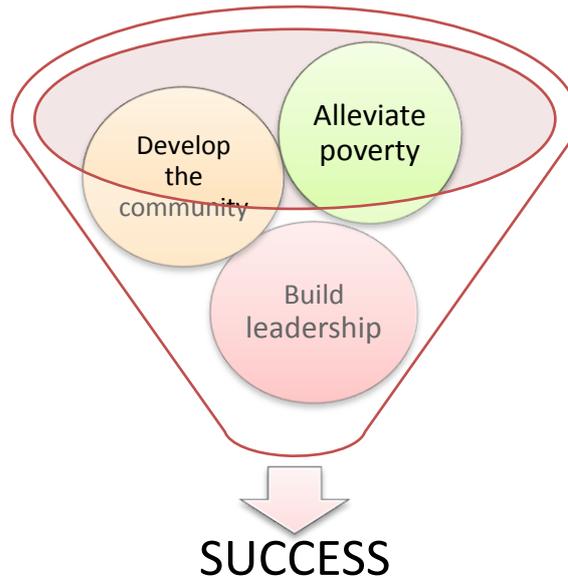


Figure 12: SASDI goals

Source: SASDI ( 2013)

It can be seen that this initiative strives to improve sustainable development in South African communities by giving them the instruments they need to function on their own in the long term. That is why this initiative focuses on leadership and entrepreneurial skills. Looking at the goals of SASDI the social pillar of sustainability shows a strong presence. If SASDI uses public participation in its processes they will be able to reach their goals much easier and be more effective in building leadership, alleviating poverty and developing communities.

Only a few initiatives are mentioned in this document. There are many more. It shows that sustainable development is being put under the magnifying glass by many countries and organisations. This in turn means that across the world people are realising the current predicament they are finding themselves in and especially in what direction they are heading if they don't pursue sustainable development. In South Africa this is especially true: As a third-world country South Africa needs the necessary structures in place to function as effectively as possible whilst utilising as little resources as possible. The country also has potential to grow and compete with "bigger and better" countries. That is why South Africa's future is very important and why sustainability plays such a cardinal role in a country like South Africa.

## **2.7 Sustainable development in the Urban Planning context – Sustainable green environments:**

Throughout this chapter emphasis has been put on the three pillars of sustainable development, namely social, economic and environmental aspects. It was necessary to focus on these aspects, because they are the building blocks of sustainable development and, therefore, also the future of development. In terms of the urban planning context, sustainable development can be translated to the creation of sustainable green environments, implying usable spaces (social impact), valuable spaces (economic impact) and visual spaces (environmental impact). In this sense, addressing the three pillars of sustainable development within a spatial context means:

- ✿ Social aspect → creating usable spaces with a social function
- ✿ Economic aspect → creating valuable spaces with economic value
- ✿ Environmental aspect → creating visual spaces by means of green-planning

This approach will be described accordingly:

### 2.7.1 Addressing the social pillar, planning for usable space:

Usable spaces imply communities using the spaces, thus optimising the social aspects as described above. There is a definite function connected to the space. These spaces can be occupied by people (Barron's real estate dictionary, 2008). It can be a room or office within a building or it can be a large outdoor entertainment area. A usable space is characterised by the ability to be utilised by people.

### 2.7.2 Addressing the economic pillar, planning for valuable space:

Valuable spaces imply a monetary value connected to the space, thus a market value, a resale value or indirect financial benefit that the space offers. The value of a space is determined by the direct and indirect benefits of the space. The number of people attracted to a space improves the value of the space as well as the revenue which can be generated by the space. There are various economic models to determine the value of spaces, but for purposes of this research it is just important to note that the economic aspects of sustainable development is related to the planning of valuable spaces.

### 2.7.3 Addressing the environmental pillar, planning for visual space:

Visual spaces imply an attractive and inviting space, and are usually a result of an environmentally friendly space, characterised by green pathways and qualitative natural surroundings. It is important to understand what impact it has on a person when only observing it. The more visually attractive a space is, the more attention it will get. When trying to make a space more visually attractive, there are many factors to take into consideration e.g. the range of colours used and the building style one wants to use.

In terms of urban planning, the focus would thus be to plan for usable, valuable and visual spaces, as this relates to the three pillars of sustainable development.

There are many ideas and methods which can be implemented to improve each one of these three spaces. Public participation is one of these methods. Through the use of participatory processes these spaces can be improved in their own unique way. Chapter 5 of this study will investigate the effects of public participation on the functionality of these spaces, thus also explaining how participatory processes contribute to improve sustainable green environments.

## **Chapter 3: Understanding public participation**

The previous chapter illustrated the growing need of sustainable development and implied that public participation can help to address the successful implementation of sustainable development. This chapter will discuss what is implied by public participation, illustrate the advances in participation and how it can contribute to the realisation of and successful implementation of sustainable development initiatives.

### **3.1 Background and introduction**

Public participation can be described as the process where the ideas, opinions and concerns of local communities are collected and analysed to be used as resources to improve plans and projects that interest and affect them (Ferguson & Low, 2005:7). It is a tool which Urban and Regional Planners use to give them a better knowledge of a specific site, as well as an insight into the needs of the community residing in the specific area. This knowledge can then be used by the Planner and other experts (i.e. Developers, Architects, Quantity surveyors etc.) to develop better, more sustainable projects.

Currently in South Africa, in general, not much emphasis is placed on public participation. Although policies provide support for participatory processes (i.e. Environmental Impact Assessments (EIA), Integrated Development Plans (IDP), Environmental Management Frameworks (EMF)) these theoretical ideas are not always implemented to their fullest extent and successful in practice.

Public participation is beneficial, not only to authorities, but also to the local communities. For local authorities it can be beneficial in the sense that the communities will support their projects, because they played a role in the development of the specific project, thus gaining social capital. If a bottom-up approach were followed, (refer to section 3.5) it will benefit the authorities even more, because the community will be included during the participation process. It will breed optimism and a favourable attitude in the community.

As stated earlier, communities can also benefit from the public participation process: They give their insights during the decision-making process, which implies that their voices will be heard. This leads to an increase in identity and a sense of ownership among local community members. Furthermore their needs are addressed by participating in the process, because they can mention features of their area which are not pleasing and need revision.

There is an increased desire among citizens to participate in decisions that will affect them. It is critical for Urban Planners to know who has important information about an issue or policy area, who will be affected by a decision and who may be able to affect a decision. Once these people are identified and their interests are understood, we can begin to see when and how it may be appropriate to engage them to initiate a successful public participation process.

### **3.2 Defining public participation**

Public participation implies that "Ordinary citizens, who form part of the general society, want to be informed in detail about decisions that affect them before these decisions are taken." (Arbter *et al.*, 2007:6). They also want to be able

to have a say in potential developments, and have direct involvement in current projects and all the development decisions that go with it. Public participation is a basic principle of democracy. Voting in elections and supporting petitions, are other examples/forms of public participation (Toth, 2010:296).

Public Participation is a combination of policies, techniques and principles which ensure that communities, groups, individuals and organisations have the opportunity to be involved in, and be part of, making decisions in which they are interested or that will affect them (Smith, 2003:34).

Canter (1996) defines public participation as “a continuous two-way communication process which involves promoting full public understanding of the processes and mechanisms through which environmental problems and needs are investigated and solved by the responsible agency; keeping the public fully informed about the status and progress of studies and implications of project, plan, programme, or policy formulation and evaluation activities; and actively soliciting from all concerned citizens their opinions and perceptions of objectives and needs and their preferences regarding resource use and alternative development or management strategies and any other information and assistance relative to the decision.”

Public participation can realise in different forms. Smith (2003:34) states that it involves both individual and collective voices: Individual voices come from citizens who want to express their views and ideas, while collective voices are derived from communities, interest groups or other organisations. This identification of stakeholders is a crucial part in successful and meaningful public participation.

### 3.2.1 Stakeholders identification

Some disciplines are very sceptical of the word “public participation”, but would rather refer to it as “stakeholder engagement.” A stakeholder can be defined as “a sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. It therefore includes the proponent, authorities and all the interested and affected parties” (DEAT, 2002:6).

Smith (2003:23) defines a stakeholder as “one who has a direct concern or interest in, is likely to be affected by, or has the ability to influence a decision. In determining who is a stakeholder, the view of the individual or group is often a more important factor than the view of the sponsor. Stakeholder identification or representation is often based on geographic location, sector, impact or interest. Stakeholders can be individuals, groups, organisations, communities, businesses, other government departments or other governments. There are no automatic, categorical exclusions.”

Smith (2003:26) furthermore states that stakeholders should be identified according to the level of interest they have shown during the participation process. Their resources and capacity are an indication of their desired level of participation. Therefore it is crucial to identify stakeholders before the start of the participation process and determine to what extent, or level, they will be engaged in the project.

A stakeholder is therefore not only the public, but it includes anyone who may be affected or interested by a certain project. The term “public participation” is used in the document, referring to stakeholder engagement.

### 3.3 Public participation: Understanding the concept

Public participation has different levels. Each of these levels has its own unique character, which differs from every other level in terms of the level of participation, techniques used to get the public involved and the “type” of public you are working with. Each level also differs in terms of effectiveness (DEAT, 2002:7). Effective public participation requires that citizens and community members should be informed and given knowledge about a certain topic that can be discussed at community meetings. All the stakeholders (citizens, organisations etc.) should show respect toward each other and they must show discipline and patience so that they can work together – especially in a country like South-Africa, where there is a variety of cultures and religions. Members of the community should know all the relevant details about a certain project, because then they are able actually to participate in decision-making and to ask relevant questions. It also provides individuals a sense of identity and ownership. Smith (2003:34) makes the valid statement that the public must be willing to be involved. They need the interest, access, the opportunity and the time to make valid contributions.

When participation errors occur the problem lies mostly with the organisation or group that leads the decisions or projects that need to be discussed, but citizens must also take responsibility for the quality of their participation. They should realise that if they want to see changes in their community that please them, they must act and be part of the participatory process. Figure 2 captures the participation process, explained in detail in section Public participation: The process3.3.2.

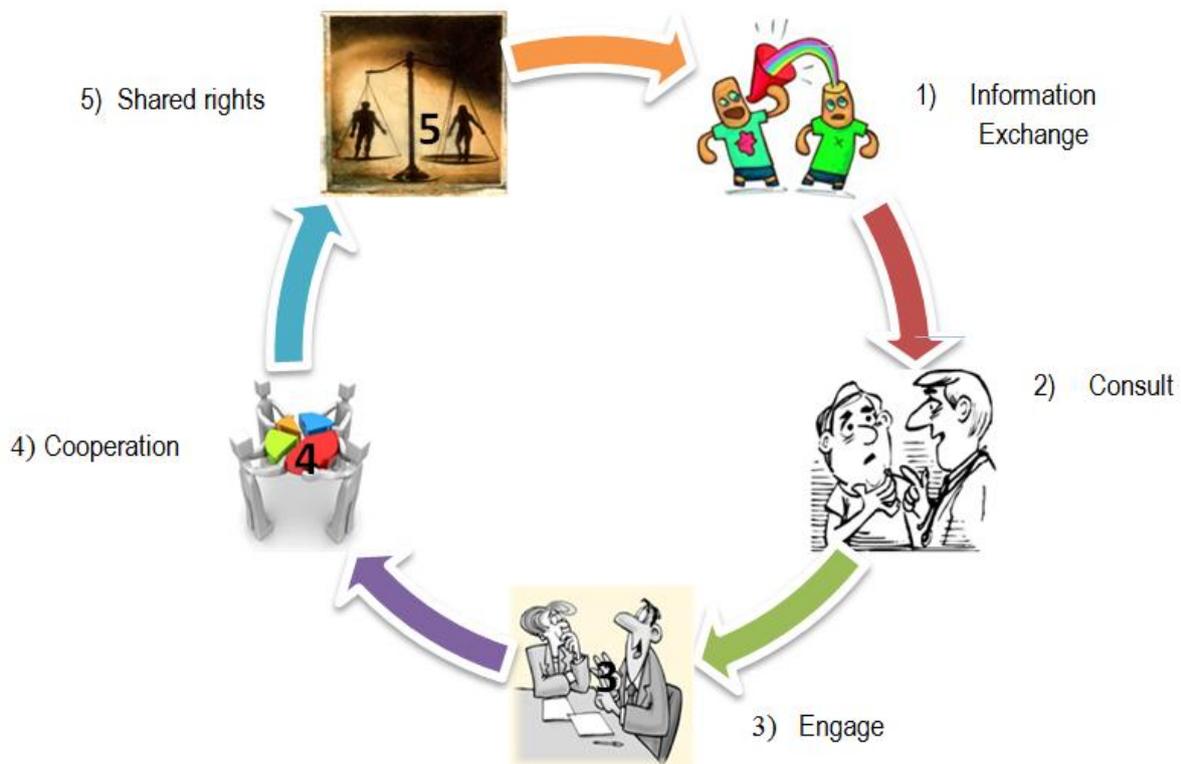


Figure 13: Public participation process

Source: Own creation (2013)

3.3.1 Public participation: Factors and principles

The following factors and principles should be included in the public participation approach in the development of public policy:

Table 6: Public participation factors and principles

Public participation principle	Description
<b>Context</b>	The public should be able to: <ul style="list-style-type: none"> <li>• Understand the goal of the project</li> <li>• Know what exactly is happening</li> </ul>
<b>Stated objectives</b>	Processes need to be guided by clear objectives: <ul style="list-style-type: none"> <li>• For all facets of the project (policy, planning, etc.)</li> <li>• For public participation</li> </ul>
<b>Clear expectations</b>	Clarify: <ul style="list-style-type: none"> <li>• The roles and responsibilities of all stakeholders</li> <li>• What the community can expect from the government</li> </ul>
<b>Inclusive process</b>	Processes for citizen participation needs to: <ul style="list-style-type: none"> <li>• Involve the right participants at the right time</li> <li>• Create opportunities for expression of feelings</li> </ul>
<b>Openness</b>	Enabling trust through: <ul style="list-style-type: none"> <li>• Honesty</li> <li>• Sharing information with the public</li> </ul>
<b>Flexibility</b>	<ul style="list-style-type: none"> <li>• Accommodate diverse needs and preferences (different cultures/religions)</li> <li>• Use a variety of styles and methods to accommodate the different cultures and backgrounds</li> </ul>

Source: Smith (2003:38)

These factors are quite self-explanatory. Effective and productive public participation relies on good communication and honesty between local authorities and communities. If there is openness between different stakeholders in a development process, decisions can be made with better judgement and less unhappiness on the side of different stakeholders. The moment all the relevant stakeholders understand the context of a development they can derive better decisions and opinions on their own, which can be heard by authorities and even implemented in a project.

As mentioned before, good communication is essential for public participation. If it is communicated to the stakeholders what they can expect from the local authorities it will already answer many questions that the stakeholders might have. It leaves less room for stakeholders to be upset about decisions made by the local authorities.

It is important to gain the favour of all the relevant stakeholders and to keep it. Therefore, local authorities should be flexible in the way they approach different stakeholders. Communities normally consist of various cultures and religions, as is the case in South Africa. It is important to take note that the stakeholders in a development process

can have different backgrounds and cultures and act accordingly by using different methods and styles to keep stakeholders interested in a development process.

3.3.2 Public participation: The process

Smith (2003:36) states that the participation process is of cardinal importance to understand in order to ensure successful public participation. The process consists of five steps:

- Information exchange,
- Public consultation,
- Engagement,
- Shared decisions and
- Shared jurisdiction

Each of these steps forms a process on its own, but does not have definite boundaries. They follow and build upon each other. Each of these steps/processes has a definite purpose and there are certain techniques that will help to execute the specific step. Table 7 summarises the five steps of the participation process, according to Smith (2003:36):

Table 7: Public participation continuum

Information exchange	Consultation	Engagement	Shared decisions	Shared jurisdiction
Info in, Info out	I listen and speak, you listen and speak	We talk and understand each other	We decide	We are responsible and accountable

Source: Smith (2003:36)

The five steps include the preferred general process which is used to execute public participation and it can be summarised as follows:

Information exchange:

The purpose of this step is to create awareness of a specific situation or project that needs the attention of the general public. It involves the education of the public to understand what the situation is and what the project entails (where, what, when, how). This step also involves exchanging views and encouraging community members to be part of the particular situation/project. Cilliers *et al.* (2012a:20) state that there is no actual input by the community at this stage. The public is only notified.

The techniques that can be used to execute this step are to arrange open house meetings or public meetings, where members of the community can have informal and formal discussions about the situation to be addressed (Arbter *et*

*al.*, 2007:9). Furthermore one can do surveys and send out discussion papers to everyone in the immediate community.

Public consultation:

The purpose of this step is communication – communication between stakeholders (community members etc.) and the party that needs the public's input. The Authorities still make the decisions, but they consult the community regarding development (Cilliers *et al.*, 2012a:20). Through communication the public can give advice and feedback. Their input can then be taken into consideration by the party that initiated the project. These conversations are also unique for discussing tradeoffs between the different parties.

Techniques that can be used consist of stakeholder meetings, where these conversations can take place in an orderly manner (Arbter *et al.*, 2007:6). Other techniques include task groups, public hearings, workshops and focus groups.

Engagement/dialogue:

Engagement is very similar to public consultation, because it explores the different views of the public as well as their perceptions and interests. The main objective or purpose of engagement is to reach a consensus – to achieve a mutual agreement. Every stakeholder's values must be taken into consideration. Authorities are therefore open to any advice or suggestions the public might have to offer (Cilliers *et al.*, 2012a:20).

Techniques are similar to previous techniques. Technology is used quite effectively in this area: All the relevant stakeholders cannot be at every meeting so technology is used to inform and engage as many stakeholders as possible. Recordings of meetings may be e-mailed to stakeholders or communication programs (e.g. Skype) can be used to communicate over distances.

Shared decisions:

Purpose: Shared decisions means to decentralise decision-making to the community level. This is where a Bottom-Up approach is very important (this will be explained in section 3.3). Responsibilities should be given to community members to get them even more involved in a project. Total integration is one of this step's main aims. All relevant stakeholders are joined in the decision-making process (Cilliers *et al.*, 2012a:20). Programs should be managed in a way that reflects the community's values. It is also of significant importance that present scarce resources should be allocated and it should be decided how these resources will be approached during development of the specific project. Authorities should accept the other stakeholders as partners (DEAT, 2002:7).

Techniques: This step or process can only be successful if each stakeholder is given certain responsibilities and held accountable for their actions. Different local boards (education, health, environment etc.) can be established to delegate actions to the community.

Shared jurisdictions:

Purpose: In this step the government is getting involved and the political side of such a project emerges. Firstly the constitutional assignment of powers needs to be recognised. Community values should be reflected and respected in governance decisions regarding a project.

Techniques: Partnerships between public and the government as well as formal agreements that should be clarified as soon as possible.

This process shares various similarities with what Cilliers *et al.* (2012a:20) refer to as the participation ladder. It basically boils down to the same idea – There are different levels of participation and each level illustrates “the different types of participation, and accordingly state the needed input and stakeholders.” (Cilliers *et al.*, 2012a:20).

Table 8 summarises the participation ladder:

**Table 8: Levels of Participation – ladder**

1	Inform	Authorities determine agenda for decision-making. No actual input by the communities
2	Consult	Authorities determine agenda, but consult communities in regards to the development
3	Advice	Authorities determine agenda, but are open to advice and suggestions from communities
4	Co-operation	Authorities, communities and stakeholders are jointly in decision-making process
5	Equal rights	Final results are subject to equal preferences of authorities and the communities.

Source: Cilliers *et al.* (2012a:20)

### 3.4 Benefit of involving the public

Why is participation so necessary? For Planners it may seem easier to simply make decisions themselves, because they are trained with more development knowledge than the average man in the community. The reality is that there are actually quite a few reasons why the government, Planners and other “professionals” (e.g. engineers, surveyors etc.) should make use of and include the public in their decisions with respect to development projects.

#### 3.4.1 Advantages

The benefits of public participation include, but are not limited to the following issues:

**Table 9: Benefits of public participation**

Advantages	Description
Improve effectiveness	<ul style="list-style-type: none"> <li>Decisions can be complex and therefore all relevant information, views, interests and needs should be included and understood</li> <li>Public participation results in higher quality decisions</li> </ul>
Meet a growing demand for public participation	<ul style="list-style-type: none"> <li>The public has a desire to be involved in making decisions that will affect them</li> <li>There is a need for greater openness of decision-making processes</li> <li>The public does not always trust only expert advice</li> </ul>

## The role of participation and technology to create sustainable green environments

Resolve conflicts	<ul style="list-style-type: none"> <li>• Negotiate tradeoffs</li> <li>• Seek consensus between public and developers</li> </ul>
Enhance public knowledge, understanding, and awareness	<ul style="list-style-type: none"> <li>• Share information with the public</li> <li>• Opportunities for stakeholders to hear each other and better understand the range of views on an issue</li> </ul>
Understand the needs of the actual users of the space	<ul style="list-style-type: none"> <li>• Build social capital</li> </ul>
Empowerment of the local community	<ul style="list-style-type: none"> <li>• Give the community a chance to express their opinions</li> </ul>
Improving decision-making	<ul style="list-style-type: none"> <li>• Develop a consensus among key role players to improve performance</li> <li>• Determine the impact of the project in question</li> </ul>

Source: (Smith, 2003:25; Ferguson & Low, 2005:9; Petermann & Troell, 2007; Cilliers *et al.*, 2012:20)

It is thus clear why public participation is of cardinal importance when it comes to approaching a certain project. If it does not realise it leads to many repercussions which are negative for society and also for the remainder of the specific project. Public participation is however, not a simple and easy task. It rather has various challenges and limitations as explained below.

### 3.4.2 Challenges and limitations to public participation

Public participation is very important and necessary to execute correctly. Unfortunately, the reality is that there are a few challenges and limitations, which the public participation process in South Africa has to deal with.

One of the main challenges, according to (Beebeejaun, 2006:4), is the issue of culture and ethnic differences. In South Africa this is especially a problem, because of the multi-cultural population. Not every culture and ethnic group can be approached using the same participation methods, because their views differ. What works for one ethnic group, may not work for another. This is why it is extremely difficult for planners to know how to approach a certain ethnic group.

Petermann and Troell (2007) mention the following challenges which Urban planners are confronted with:

- The choice of participants: It is difficult to choose the participants you want to use. For the best results all possible participants should be used, but due to time and money it is not possible. Exclusion is therefore an issue that needs to be handled. Some participants will not accept their exclusion and you must make them understand why you did not choose them for the participatory process.
- From theory to practical implementation: Petermann and Troell (2007) state that it is not easy to implement theories during the participatory process. It is easy to be creative and jot a few notes down on paper, but to implement these ideas is very difficult.
- Life span: One of the key words in Planning is "Sustainability." It is therefore important to sustain the benefits of public participation beyond the life of a specific project. Many times the effects of the participatory process die away when the specific project is finished. It is a challenge to keep and sustain these benefits in the long term.

- Budgetary constraints: Finance is always a challenge. To execute a successful participatory process the necessary funding is needed.
- Unrealistic expectations of communities: It is extremely important to get communities involved in decision-making processes, but the reality is that some communities, because of a lack of education, raise unrealistic ideas and expectations. If these expectations cannot be met by Planners and other experts in the same field, it may result in an unhappy and rebellious community which in turn can lead to more damage being done (Ferguson & Low, 2005:9).

### 3.5 Paradigm shift

With all this being said it is important to mention and discuss the fact that public participation does not enjoy the same approach internationally. Over time the idea of public participation and its role in project realisation has climbed up and down the “importance ladder.” Through all this shifting two basic paradigms have emerged which are very important to investigate: The top-down approach and the bottom-up planning-approach, as captured in Table 10.

Table 10: Two different paradigms in public participation

Top-down	Bottom-up
No real public involvement	Public involvement
Special interests	Public interests
Capitalistic	Democratic

Source: Own creation (2013)

Smith (2003:22) refers to these approaches as favouring “special interests” and “public interests” respectively.

The top-down approach in terms of public participation basically means that the public is not the main focus group. Questionnaires will be sent out to the public and a few interviews may be done, but the idea behind these “efforts” is not really to involve the public and to formulate better ideas through their inputs. Above procedures are done in these cases only to let a project look good on paper, and because appropriate legislation demands proof of public participation when a project is materialising – as discussed in chapter 6.

When public participation is implemented to improve “special interests” it also follows a top-down approach. These interests are aimed at specific individuals or members of society. The idea is to benefit these individuals through public participation. For example, if there is a tender to develop a high building in a neighbourhood, the surrounding home owners may be against the erection of this building, because it will block the sun that they currently enjoy. These few members of society can possibly use the public to help express their unhappiness about this building and eventually the tender will not go through and the high building will not be built – all because these selected few did not want the building to be built.

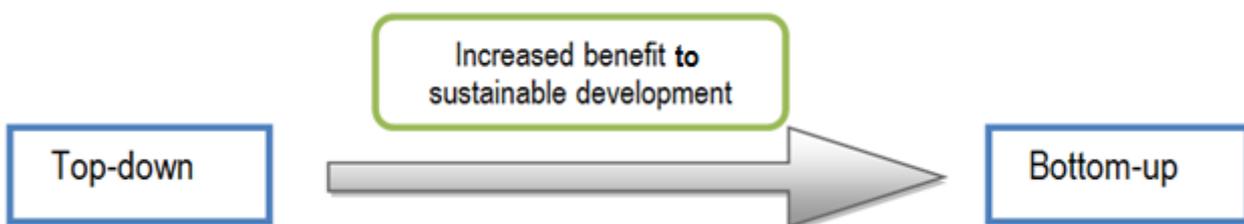
The bottom-up approach with respect to public participation is nearly just the opposite. The public is the main focus group and participation is needed from their side to give planners and developers clearer and better ideas to improve

projects to benefit the overall society. More detailed procedures are taken to involve the community and more community members are interviewed to get a more holistic view of the current situation.

This “more sustainable” bottom-up approach is starting to get increasingly important for Planners as well as for other disciplines, in South Africa as well as in the rest of the world. It is the approach that has to be followed in the future, not just in Urban Planning, but in all disciplines across the planet. That is why a study in chapter 9 will be done on how public participation is executed in other disciplines in South Africa, as well as how other parts of the world view public participation. Practical methods will be presented on how the public is used to reach sustainable conclusions. An indication of the attitude towards public participation in South Africa and other parts of the world will also be given.

In the previous chapter, sustainable development was the main point of focus. From the research done it was concluded the present world is in a serious predicament and needs to change in order for future generations to live their lives as people do today. For this to occur the world needs to become more sustainable, therefore preserving natural resources and protecting the environment. Section 2.3 explained that there are different pillars of sustainability, each contributing to sustainable green environments in its own way. Each one of these pillars are struggling to be sustainable and contribute to the lives of future generations.

This paradigm shift (from a top-down to a bottom-up approach) seen in public participation will prove to be extremely helpful in striving for sustainability. The bottom-up approach will help the three pillars of sustainability to be more sustainable, because the input of the public carries more weight in decision-making processes. As explained in section 2.3 the inclusion of the public in decision-making processes is beneficial to the economic, environmental and social pillar of sustainability. Because sustainability is experiencing this paradigm shift, it is a very useful tool to use, as it will improve sustainable development to enhance sustainable green environments. Figure 14 summarises the correlation between the public participation paradigm shift and the benefit each approach has to sustainable development.



**Figure 14: Correlation between sustainable development and the public participation approach**

Source: Own Creation (2013)

### **3.6 Traditional public participation methods**

To execute the public participation process, certain methods are used to get local communities involved. Methods will vary, depending on the size of the community, where the community is located, the conditions in which they live etc. Many methods have been developed during the past few decades, but there are traditional methods that have always

been used and are regarded as the “safe route” to take in terms of the participation process. Smith (2003:43) names the following traditional methods:

- Public meetings: open to anyone with an interest in the current situation. Opportunities to speak are provided for the public .
- Public opinion surveys: Uses a large number of participants (questionnaires or telephonic). Involves a variety of questions (Rowe & Lynn, 2000:8).
- Open house: Communicates information regarding a project through a series of displays. Answers from the community members will be answered.
- Workshops: Stakeholders attend meetings to review information and solve problems. Workshops are also used to educate participants. Action plans are developed.
- Focus groups: 8 – 10 people are selected to represent a larger area of community members who are affected by a certain project of proposal. These selected few convey the feelings, values and interests of the communities they represent (Rowe & Lynn, 2000:9).
- Interviews: Discussions are held on an individual basis with community members. Members can express their feelings and ideas better in this situation than filling in questionnaires (Easley & Coyne, 2005:26).
- Questionnaires: Authorities sending out questions on papers which the public can choose to fill in and send back.

Public participation is very crucial in Planning processes and the advantages it provides are much needed. With the advantages come a series of challenges, but with the correct management these challenges can be minimised, resulting in an effective processes where the public can get actively involved in decision-making and development processes. This chapter focused primarily on “traditional public participation”, whereas the following chapter will investigate the implementation and efficiency of new technology-based participation methods.

# **Chapter 4: Recent advances in participatory processes**

## **4.1 Introduction**

In section 3.6 traditional public participation methods were discussed. These methods have been working successfully thus far and many professionals still use these methods to execute effective participatory processes. Chapter 2.1 explains that the world has changed drastically in the last century and it is still changing. Population sizes have increased, the interests of people have changed, and since the introduction of advanced technology, development preferences have been affected. Because of all this change, participatory processes are now as important as they will ever be. Traditional methods of public participation, mentioned in section 3.6, are therefore not as effective today as they perhaps were in the past. The effectiveness of traditional participation methods is being questioned as perhaps “less sophisticated” and “inflexible” (Al-Kodmany, 2001:24). Evans-Cowley & Hollander (2010:397) mention that traditional methods are “flawed”.

Oprea & Sarpe (2009:2) states that there are currently a few crucial participation problems:

- “The lack of participation of every-day people, and
- Experts are struggling to solve community problems at local, national and international levels.”
- The citizen engagement tools (traditional tools/methods) that are being used today are not very effective.

According to Oprea & Sarpe (2009:2) there are a number of reasons why community members do not participate in community problems. The reasons include:

- 1) The lack of information and knowledge regarding community problems.
- 2) Community members do not believe that they have the ability and knowledge to make effective recommendations to solve community problems.
- 3) They feel that, because they have a low socioeconomic status (“ordinary citizens”) they do not possess the authority to participate in decision-making processes.
- 4) Community members have limited time and resources to participate effectively.

It is because of these challenges that attempts have been made to create newer advanced methods to reach out to the public in a different, yet more efficient way. In this section, these new methods will be discussed and compared to traditional methods to analyse if newer methods are indeed better and more effective than traditional methods.

## 4.2 Defining a “new method”

When considering newer methods to enhance public participation, the use of technology as a resource comes into play. By using technological advancements, planners can use many new methods and tools to communicate their ideas and visions to the public (Al-Kodmany, 2001:1). Al-Kodmany (2001:1) names these new methods “computerised methods”, because you can only perform all of the new methods by using different programs on a computer. A computerised method requires electronic access (Downing, 1999:2), meaning that whoever uses the method, either as the participant or the party using the method on the participant, will need electronic access to a computer to execute the method.

### 4.2.1 Different types of computerised methods

There are many different types of computerised tools which Planners and other experts have already started to utilise with effect, to get the public involved in participatory processes:

*GIS Mapping:* Experts are starting to use Geographic Information Systems (GIS) in participatory processes. GIS are used to generate data and maps, which are then displayed for the public to view and comment on the development at hand (Figure 15). According to Ad-Kodmany (2001:11) GIS can be used as a communication and visualisation tool. When the public can see a visual demonstration of what a development will look like, they can formulate opinions that are more accurate and make better recommendations to planners and other experts. Participants therefore prefer visual information (Evans-Cowley & Hollander, 2010:399). “GIS technology can be used in lower income communities to assist in translating complex spatial information into a visual, non-technical language that everyone can understand.” (Al-Kodmany, 2001:11).



Figure 15: GIS mapping

Source: Satellite imaging corporation (2013)

*Three-Dimensional Modelling:* This method involves creating a collection of buildings in three dimensions. This gives one the ability to view a building from different angles, resulting in a better understanding of a proposed development.

This method is easy to understand for the public, who does not necessarily have knowledge of cartography and building guidelines.



Figure 16: 3-D Modelling

Source: Laternal visions (2013)

*Virtual Reality (VR)*: VR makes use of three-dimensional modelling, but takes it even a step further. A VR involves moving around within a three-dimensional building. One would not only be limited to looking at the house from different angles, but one would be able to go into the house and explore every room. A VR is characterised by extreme detail. It is a virtual world one can explore. When the public can explore a VR of a proposed development, it will provide them with all the detail they need to ask sufficient questions and give good advice. Figure 19 illustrates a VR.

*Simulators*: Simulators are similar to virtual realities in the sense that one can move around inside a virtual world, but a simulator has even more detail with objects moving in the simulation to provide more effects. It represents dynamic processes, such as the building process of a building, from the first brick laid to the finishing touches.

*Hypermedia*: De Bra (2007) defines hypermedia as an “application that uses associative relationships among information contained within multiple media data for the purpose of facilitating access to, and manipulation of, the information encapsulated by the data.” It is thus a combination of different types of multi-media (sound, video, text and graphics), interacting with each other to create an accurate application that links many different pieces of information on a single window (Figure 17). Hypermedia can be very helpful for participatory purposes, because it can mix spatial, economic and political information to provide participants with an accurate proposal or idea of a development (Al-Kodmany, 2001:19).

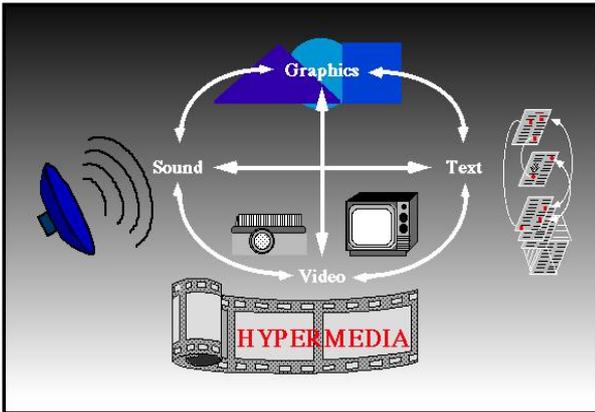


Figure 17: Hypermedia

Source: Steinmetz & Nahrstedt (2013)

*MMOG's*: According to Hanzl (2007:295) massively multi-player online games (*MMOG's*) are a tool with educational potential. Different types of games exist and one might think that games are always about violence, but strategic games have become very popular. These games provide room for participation, exploration, innovation and creativity. Examples of such a game are *AlphaWorld* (Hanzl, 2007:296) and *Second Life* (Evans-Cowley & Hollander, 2010:398), where each user creates an avatar to move within the game (Figure 18). Each user creates his/her own virtual reality. Users can move through each other's virtual realities and provide comments or ask questions as they move through a virtual reality. In terms of *MMOG's*, planners want to focus on young people, because they generally have a better understanding of the gaming environment (Evans-Cowley & Hollander, 2010:398). Planners can use *MMOG's* as a public participation method. They can create a virtual space representing a proposed development and make it possible for the public to move around as a character within this space. Whenever a member of the public "walks" through the space he/she can leave comments at certain areas for Planners to look at and investigate.



Figure 18: Massive Multi-player Online Games

Source: Bloggershai's blog (2013)

#### 4.2.2 The Internet

The International Network (Internet) is possibly the best source to utilise for all the computerised methods. It is already being used as a communication tool (video calls, emails, websites and online conferencing). It provides easy access to community members at relatively low costs. When VR, GIS maps, three-dimensional modelling and simulators can be connected to the Internet, it greatly influences public participation for planners. It is already being used for this function and certain software/digital languages have been developed to make it possible for the public to view the methods discussed in section 4.2.1:

- 1) Virtual Reality Modelling Language (VRML), as shown in Figure 19, is a program developed to make it possible for online users to open and view virtual realities via the Internet (Hanzl, 2007:291). It has been created to assist in visually communicating proposed developments to the public via the Internet (Al-Kodmany, 2001:21). Communities have therefore improved access to visual presentations of proposed developments by using the Internet in the luxury of their own homes.



Figure 19: Example of a VRML

Source: Bourke (1991)

- 2) According to Hanzl (2007:293) Participatory Planning Geographic Information Systems (PPGIS) “serve data with spatial reference to wide audience via the Internet.” The public can access GIS data and 3D-presentations of proposed developments. To get communities further engaged in the process the data can be manipulated by the public by using online GIS tools (Hanzl, 2007:293). The idea behind this is to construct a GIS under the guidance of both experts (planners and GIS technicians) and the inexperienced (community) (Kemp, 2008:99). This will most likely result in a development that satisfies the public and functions effectively.
- 3) XML (Extensible Markup Language) is a way to encode documents and data structures (3D visualisations) in such a way that it is readable on the Internet (Doszkocs *et al.*, 2007). It strives to present information in a flexible, readable, simple and usable manner.

There are many more formats and software available that provide aid for presenting data on the Internet.

Lastly, it is crucial to discuss the use of social media to enhance public participation within the context of “new methods”. Evans-Cowley & Hollander (2010:397) explains that citizens are increasingly communicating and sharing information via social network sites such as Facebook, Twitter and You tube rather than by means of personal, face-to-face, conversations. Even in politics, social networks are being used to get communities more involved in political processes. For example, during Barack Obama's inauguration, more than a million people logged on to Facebook to watch it and many joined his Facebook page. Citizens also used social networking sites to watch Obama's “presidential debate and ask questions via instant messaging” (Evans-Cowley & Hollander, 2010:398). Social networks are effective participatory tools, because it is possible for Facebook groups to grow very fast in members in a short time, making it more realistic to ask questions within these groups, rather than planning a meeting for a few participants. Joinsons (2008:3) explains why people enjoy using social networking sites, such as Facebook and Twitter: Contacting friends who are far away, viewing photographs of other friends, virtual people-watching and reconnecting with people with whom contact has been lost. The above reasons explain why social network sites are effective as a participation method: people enjoy being connected and being informed of what is going on around the world and in other people's lives.

#### **4.3 Pilot study: Woolworths**

In September 2012, Woolworths (a chain of retail stores) in South Africa was accused of racism by some groups for allegedly discriminating against white job applicants and staff. The accusations followed after claims that the retailer's advertising on their career site said its jobs are only open to "African, Coloured and Indian" candidates (Fin24, 2012). It caused reaction from the nation, specifically white South Africans. A considerable amount of effort was put into boycotting Woolworths. One method was to create a Facebook group that the unhappy citizens could join. On this page people could state their dissatisfaction with Woolworths. The aim of the Facebook page was to get a large number of members to participate and to send Woolworths a clear message that the citizens are very unhappy with its actions.

This is a very simple example of the speed and magnitude with which social networks can get communities to participate in a situation. It can therefore also be used effectively in participatory processes within Urban Planning. Figure 20 below is an illustration of how a social network (You tube) can provide participants with the opportunity to participate and ask questions regarding a certain matter:



Figure 20: Illustration of how the public can easily participate using the Internet

Source: Hammack (2013)

#### 4.4 Old versus new methods

As mentioned in section 3.6, there are various traditional public participation methods being used today.

“While planners and designers have developed many specific methods of using traditional tools for participation in community planning, fewer methods have been developed using computerised tools...” (Al-Kodmany, 2001:10) Computerised methods of public participation is perhaps not as familiar to Planners as traditional methods, but it is nevertheless relevant to investigate if these newer methods can provide even better assistance to Planners and other experts during participatory processes. Table 11 below compares traditional participation methods with new computerised tools in terms of both their advantages and disadvantages:

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Table 11: Comparing traditional participation methods with modern computerised methods

	Advantages	Disadvantages
<b>Traditional methods</b>	Generally more social interaction between participants and provides a participant with an experience.	Although accessible, it cannot provide comprehensive data and feedback to the public when there is a huge volume of complex information which needs to be processed, leading to difficult participation from the public.
	Methods are effective when the participants shares opposing values and interests.	Inflexible – difficult to present information in such a manner where participants can be provided with perspective. Participants are unable to “zoom in and out” (Al-Kodmany, 2001:24) and formulate an accurate picture of their own of a proposed development.
	Personal interaction makes conflict resolution much easier and faster.	Difficult to record proceedings at, for example, a public meeting. Valuable comments, opinions and information from the public can be lost.
	Methods are simple, which can lead to confidence and courage among participants.	Less effective when planning for future developments. The lack of detail of maps and physical models makes it difficult for participants to visualise potential developments, making it even more difficult for the public to think of alternative design proposals.
	Accessibility – while certain methods such as public meetings are not always very accessible, surveys can be widely spread with little effort and a variety of participants can be reached.	Traditional methods are based on direct contact, therefore many citizens are sceptical of making their identity known by commenting and reacting to governmental decisions.
	Generally associated with low costs	
<b>Computerised tools</b>	Can explore and process very complex information.	Although these tools impress participants very much due to the visual presentation it offers, it still does not fully provide users with the authority to engage and have an influence on decision-making processes.
	Very effective – large number of participants can be reached simultaneously, therefore saving a considerable amount of time.	Responsiveness of participants are not guaranteed
	Improve public education – by using the Internet to access information, participants will become more computer literate, leading to better understanding of proposed developments. According to	Challenge to link computerised tools with traditional methods and processes. The community can participate via the Internet and make suggestions, but from a legislative point of view, decisions can only be changed at a

The role of participation and technology to create sustainable green environments

	Yao (2006:25) a “better informed citizenry is likely to be a more active one.”	public hearing and not through comments for example on Facebook (Evans-Cowley & Hollander, 2010:399).
	Data immediately available	Computerised tools can be very difficult to use, making the public dependent on experts to use these tools for them. Using a VRML can be too complex for the public and therefore still remains in the hands of a computer programmer.
	Although direct contact is more difficult to realize, the availability of information is very good, because the public can leave comments where other participants can read it freely, as seen in Figure 20.	Yao (2006:31) mentions that digital divide is a major problem with online participation and that marginalisation of certain groups, such as minorities, elderly people and the poor, is a reality with online participation.
	Chat rooms and online dialogues make it possible for participants and other stakeholders to engage one another and discuss each other’s opinions regarding the issue at hand.	It’s possible that visual presentations can be misleading to the public. According to Al-Kodmany (2001:28) some critics have suggested that due to impressive video/image editing technology, the public can be manipulated because of the beauty of the images. Communities can even misunderstand a proposed development.
	Visualisation – community members do not necessarily want to listen to Planners or other professionals trying to convince them of a project. They are very interested in what the end result will be of a proposed development regarding aesthetics. Computerised methods possess the tools to provide accurate visualisationvisualisations or illustrations of what a proposed development is going to look like.	Cost – The software and hardware needed to utilise computerised tools are very expensive.
	Citizens with no reading or writing skills can still be informed by looking at visualisations and illustrations of projects.	
	With technological innovation more creative participatory methods can be created (as in Table 21).	
	Citizens who are hundreds of miles away can still actively participate and influence decision-making processes.	
	Transparency – all comments, ideas and opinions from the public can be stored and a record of the whole decision-making process can be provided. This in turn would allow the public to follow how	

	a decision originated and evolved, therefore providing transparency of the decision-making process.	
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Source: Own creation (2013)

By comparison, it is clear that both approaches contribute to the public participation process. Computerised methods are not intended to replace traditional methods, but to enhance the participation process and successful implementation thereof. Evans-Cowley & Hollander (2010:406) state that “there is limited use of these new technologies to engage in planning”. They believe it may be because of the technology not being well known and the high level of inexperience that goes along with it. Contrasting to this view, Downing (1999:2) believes that computerised methods can make public participation easier for the general public. “Citizens who can sit at a computer terminal in the comfort of their home, office or community centre...who can get answers to technical and complex questions, are more likely to participate in the process...” (Downing, 1999:2-3).

The choice of public participation method is extremely important for Planners and other experts. The goal of participatory processes is to encourage the best possible solutions for a certain situation. To keep community members interested it requires innovation, creativity and flexibility. Therefore it is not a simple task to choose such a method.

It is evident that there are different views and different attitudes towards traditional and computerised methods, regarding public participation. Therefore the best solution lies in the integration of these contrasting types of methods.

Computerised methods provide various advantages for Planners in terms of its potential to improve public participation. The fact that many people can simultaneously be reached and informed about certain planning processes, makes computerised methods a very viable option to look at and investigate for participatory purposes. In the following chapter the study will take a closer look at the effects of participatory processes on different types of spaces, as mentioned in section 2.7. A deeper investigation regarding the influence computerised methods and technology have on sustainable green environments will follow.

#### **4.5 Impact of computerised methods on public participation and sustainable green environments**

Public participation plays an important part in any development process. It provides various advantages for both the public and the expert (Planner, engineer, building contractor and any other professional who forms part of a development team). Apart from all the advantages mentioned earlier in the document, it has an enormous impact on the development of sustainable spaces (social, environmental and economical). In all the cases discussed above, if the public were not in agreement with the proposed space-development, they would not have used the space as much as they did after the government or local authorities took their complaints and suggestions into consideration. The public, as the users of all types of spaces, can determine the success, therefore the future, of a space. That is the extent to which the public can impact a space.

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Taking this into account, as well as the reasons provided in section 2.3, it is evident that public participation can assist in enhancing sustainable green environments. Participatory processes can be enhanced even more by implementing computerised methods. This suggests that by implementing computerised methods, public participation will perhaps be able to enhance sustainable green environments even more.

Computerised methods have various advantages which would make one believe that it will enhance sustainable development. These methods are very effective in the sense that a large number of participants can be reached simultaneously, therefore saving a considerable amount of time. Citizens who are hundreds of miles away can still actively participate in and influence decision-making processes. The more members of the public are informed of proposed developments, the more members can comment or make suggestions regarding the particular development. It will provide Planners and other professionals with more accurate data, leading to more sustainable possibilities.

Community members do not necessarily want to listen to Planners or other professionals trying to convince them of a project. They are very interested in how a proposed development is going to function and how aesthetically pleasing it's going to look, because a new development will have an impact on a community and the public wants to know what this impact is going to be. Computerised methods possess the tools to provide accurate visualisations or illustrations of what a proposed development is going to look like once it is built. This is especially relevant in a country like South Africa where the majority of the nation is illiterate. Many South African citizens will not be able to understand a Planner when he/she is explaining the purpose of a proposed development, but if they can see with their own eyes what a development is going to look like, they can formulate a better understanding of the development for themselves. Community members will have better insights into a proposed development, improving the quality of their opinions and comments, and in turn also resulting in better sustainability of a project.

Transparency and openness is very important in any decision-making process. Computerised methods of participation serve as a medium for transparency. All comments made regarding a proposed development can be viewed by other participants, while still protecting the identity of the participants who commented. Reading the ideas of fellow participants will also provide valuable background and insight for community members, enabling them to make valuable contributions to the public participation process and in turn providing Planners and other professionals with valuable information to perhaps enhance the sustainability of a proposed project.

It is clear that technology-based public participation methods can be very beneficial in any decision-making or development process. With the implementation of these methods, more citizens will be able to respond to issues that affect them at a faster rate. It poses various challenges which cannot be ignored, but with the correct approach and management these methods can be very beneficial to Urban Planners and other professionals.



# **Chapter 5: Participatory planning assisting to create sustainable green environments**

## **5.1 Introduction**

In the previous chapter the benefits of and the need for public participation was investigated. Section 2.7 states that, for this study, sustainable green environments can be related to three types of spaces: Usable-, visual and valuable spaces. Therefore, these three spaces will be the main focus point of this chapter and it will be investigated whether public participation can have an impact on the functionality and creation of these types of spaces. Metcalfe (2008:1) mentions that “stakeholder engagement has recently been increasingly identified as key to business success both within private and government sectors.” This suggests that participatory planning may have an impact on a variety of processes, not just in politics, making it a useful tool in creating sustainable green environments.

## **5.2 Participatory planning contributing to creating sustainable green environments**

Public participation can assist in creating sustainable green environments, as it captures the core needs of society, defined in terms of the social, economic and environmental aspects (cross reference to section 2.7). As participatory planning was proven to prioritise social issues (needs identified by communities and used to plan urban spaces), along with environmental issues (as communities often choose green environments instead of commercial or urban developments, in contrast to local authorities and developers who would often rather choose economically viable development options), the following spaces are created as a result of participatory planning processes:

- ✿ Usable spaces : Spaces being utilised by communities, thus optimising the social aspects of the space.
- ✿ Valuable spaces : Spaces which boosts the monetary value connected to the specific space.
- ✿ Visual spaces : Attractive and inviting spaces are usually environmentally friendly spaces.

Figure 21 below is a simple illustration of the different types of sustainable spaces mentioned above:



Figure 21: Different types of sustainable spaces

Source: Rethink (2013)

Public participation is one of the few processes that can have an influential role in creating useable, valuable and visual spaces, as described below.

### 5.2.1 Usable spaces

Usable spaces are linked to the functions within a space. Not necessarily functions to generate revenue, but activities to attract people and to make the space more convenient for people to function within it.

Public participation can assist in creating better usable spaces by giving community members the opportunity to say what changes they would like to see in a specific space and for which activities they want to utilise an area. It is important to listen to the public in this regard, because to create a social usable space, there needs to be activities which will attract people, resulting in the space being used more and more. It is important to emphasise that a usable space is planned according to the actual needs of the people and not of the local authority or municipality.

In section 3.4 a number of the advantages of public participation were given. One of these advantages states that public participation will help Planners to “understand the needs of the actual users of the space.” Another advantage is that public participation will enhance public knowledge, understanding and awareness of developments. By taking these advantages into consideration it is evident that public participation can assist in creating usable spaces.

5.2.1.1 Case study: Bairnsdale aboriginal children and family centre

The Bairnsdale aboriginal children and family centre is an example that illustrates how the public can have an impact on space and make it more usable by fulfilling their needs. When the children and family centre was constructed, the local government and the community successfully worked together to deliver a usable product. The local government engaged the public through community meetings. Aboriginal families, the actual users of the centre, were given the opportunity to describe the needs they wanted the centre to fulfill for them. Other stakeholders were given the opportunity to get involved in the project and were able to take ownership of the project to meet the community needs (SNAICC, 2012:9-10).

From these public meetings and interactions a strong desire from the community emerged that the centre should be built according to traditional designs and concepts and not according to newer approaches as was initially the case. This resulted in a change of the building designs from a new approach to more traditional designs.

If the community was not engaged and involved in the decision-making process the final centre would not have been as effective and usable as it turned out to be. Aboriginal families would most likely have searched for other centres that satisfied their needs better (SNAICC, 2012:9-10).

From the example given above, it is clear that the public can provide extremely valuable inputs in the decision-making process of Planners and other experts. As mentioned earlier, for a usable space to be successful the needs of the public have to be taken into consideration. If the public has the opportunity to make suggestions, and these suggestions are implemented by local authorities, it will boost the ownership and identity of the local community and they will support a development. Useable spaces will be created.

5.2.2 Visual spaces

A visual space is quite simply characterised by what it looks like and how visually pleasing it is to the public using the space. Visual attractiveness of a space depends on the different colours used in the space, the materials used as well as the type of designs implemented in the space. The main aspect, however, affecting the level of visual attractiveness of a space for the public is the extent to which the environment can be integrated within a space.

Community members can be attracted to visual spaces for various reasons:

- To experience serenity and relax within the space (parks and open spaces within a city)
- Entertainment (Going on hiking- and walking trails in conservation areas)
- To protect endangered plant/animal species (stop the destruction of forests for development)

Public participation can assist in creating and protecting visual spaces. A 2006 poll for the BBC discovered that 81% of the local public supported the statement that the government's main goal should shift from gaining the "greatest wealth" to achieving the "greatest happiness" (Michaelson, 2009). Large portions of communities believe that local authorities do not generally pay much attention to the environmental side of a development. They tend to focus on the efficiency and the cost of the space, as well as the revenue that will be generated by the space. In contrast to this attitude, communities ask for visually attractive spaces, where there are many environmental features. If the public

can participate in the decision-making process of developments, they will probably influence the environmental aspect of the development. They can bring it to the attention of local authorities and development plans can be altered to satisfy the local community's preferences regarding environmental inputs.

One of the many advantages of public participation is that scarce resources can be allocated (Ferguson & Low, 2005:9). The public can help local authorities to implement environmental features within a space to make it more visually attractive for the public, who are the actual users of the space.

### 5.2.2.1 Case study: Eastern Scheldt

The Netherlands is a low-altitude, densely populated country in Europe where over 50% of the population live at the coast. Because the country generally has a very low altitude, there is always the fear of coastal floods and storms causing devastation in the towns near the coast. The Dutch government thought of projects and initiatives to implement with the hope of minimising these threats. One such project the government wanted to initiate was the plan to build a dam in the Zeeland province that would completely block off the Eastern Scheldt, a river running through the Netherlands, from the sea. The Government thought it would be beneficial to the whole country, because it would increase general safety and minimise fear of floods. In 1953 this part of the country suffered damage and more than 1800 citizens died due to heavy storms and floods (Van der Tol, 2011). This incident served as additional motivation to erect the dam. Although the proposed dam served as a barrier against future floods, it meant that valuable ecosystems, characteristic of the area, would be destroyed. The government thought the destruction of the ecosystems was a necessary sacrifice to make, but the Dutch public felt differently about the situation.

The public was very outspoken about their dissatisfaction regarding the proposed plan. Due to many protest letters and protest marches the Dutch government agreed to re-evaluate the plan. Authorities listened to the public and understood why they were concerned about the project. The public did not want the ecosystems to be destroyed, because it was of value to them (Coastlearn, 1999). An alternative had to be established.

Therefore the original plan to completely block the Eastern Scheldt was abandoned. Instead, an open dam was developed, which can be closed in times of heavy floods and rough weather. The rest of the time it would be open and the river would flow as it normally would. The project was a success, even though the cost of the re-evaluated plan was about seventy times more than the original plan (Coastlearn, 1999).

This example illustrates the authority the public can have if they feel strongly about a space being undermined and deprived of its visual value. Local communities can have an effect on a visual space that the government can alter its plans to satisfy the public, as seen in the example above. If local authorities take the suggestions of the public into consideration, it will ensure a sense of optimism and appreciation among community members which, in turn, will be beneficial to future developments.

### 5.2.3 Valuable spaces

Valuable spaces are linked to the understanding that value is subjective. A local authority might be of the opinion that a valuable space is being developed, but the society, and users of the space, might not agree. Valuable spaces capture the previous two spaces (visual and usable spaces), because a visual and usable space would entail that community members use the space and thus value the space. Spaces can be valued in terms of direct and indirect benefits. Direct benefits are linked to the economic value of the space itself, whereas indirect values imply the social and environmental benefits that a space provides, measured and calculated in terms of financial value.

In terms of the direct benefits of valuable spaces, participatory planning assists in creating valuable spaces, as communities are the drivers of the development, stating their actual needs and requirements, along with development visions. For any economic activity to occur, there needs to be consumers buying and selling products. The public therefore play a fundamental role as they are the consumers. If the public decide to withdraw from a valuable space, the area will quickly lose its value. When planning a valuable space, the public can make suggestions as to what activities they would like to have in that particular space. These activities will be the activities that the local community actually wants. If these suggestions are taken into consideration and implemented by the government, the community will be very pleased and they will spend more time and money on the activities within the space. Because of the higher expenditure rate, the space will become even more valuable. The government as well as the public will end up satisfied.

#### 5.2.3.1 Case study: Wal-Mart

In 2005 Wal-Mart Canada contemplated establishing a Wal-Mart branch in Vancouver. Wal-Mart's reputation and customer loyalty is very important to them. Therefore they did not want to erect a Wal-Mart in Vancouver if it would not be successful and valuable to the surrounding areas. On hearing the news that Wal-Mart wanted to erect a branch in Vancouver, some of the Vancouver residents made it known that they did not want Wal-Mart to proceed with the development due to various reasons: The fear of globalisation and unionisation. The Wal-Mart group started to fear that this would be harmful to the brand in Canada.

Wal-Mart reacted to these comments by communicating their values to the Vancouver public in an attempt to provide the public with a better understanding of what their intentions were. They included the public in their plans and hoped that they would win the favour of many citizens of Vancouver to generate a positive attitude towards Wal-Mart in Vancouver. After this, Wal-Mart launched a survey across the city to investigate the general feeling towards a Wal-Mart branch in the city. 65% of the residents of Vancouver supported the development. It was good enough for them to continue with the development.

Although the public did not change the plans of the development, they still had the power to stop the development of the Wal-Mart branch. But after the public had participated in the process, they were better informed of the values and intentions of Wal-Mart. Most of the public then accepted the development and agreed that a Wal-Mart would be

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beneficial to them. Public participation can therefore influence a valuable space and cause an increase or a decrease in the economical activities, therefore affecting the value of the space.

Sustainability mainly consists out of three pillars: The social, economic and environmental pillar. Each individual pillar contributes to the enhancement of a type of space, investigated earlier in this chapter. All three pillars can be affected by including the public in a development processes. Normally the needs and opinions of communities differ from that of the government or local authorities. For this reason the inclusion of the public in decision-making processes adds another “dimension” to development and it is these different views that normally affect and improve the sustainability of a development or a space.

Taking these truths into consideration, it is self-explanatory that through the correct and effective implementation of computerised methods as public participation tools, the participation of communities in development processes will be enhanced. This will lead to the enhancement of sustainable green environments (Figure 22).

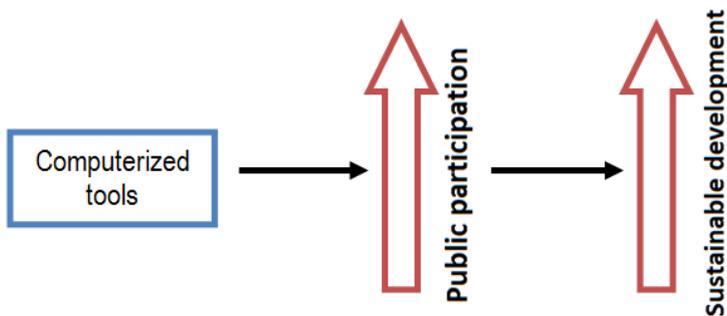


Figure 22: Effect of computerised methods on sustainable development

Source: Own creation (2013)

# **Chapter 6: Legislation guiding participatory processes in South Africa**

## **6.1 Introduction**

In the previous chapter the influence public participation can have on sustainable green environments were investigated. It became clear that, from a theoretical point of view, participatory planning could indeed improve the sustainability of a project. By using technologically advanced participation methods, or computerised methods, sustainability can be improved to an even greater extent. It can be very beneficial to planners to use this knowledge, but it is important to investigate whether participatory planning has the legislative support it needs to be able to have an effect on sustainable development.

In South Africa, the political power exceeds all other forms of power and it is elements of politics (e.g. laws and regulations) that “controls” the different processes in a country to maintain order. It is therefore necessary to investigate what South African legislation says about public participation. The following policies and legislations will be evaluated:

- 6.2) National Environmental Management Act [No. 107 of 1998]
- 6.3) Gauteng Petitions Act [No. 5 of 2002]
- 6.4) Integrated Development Plan (IDP)
- 6.5) Strategic Environmental Assessment (SEA)
- 6.6) Environmental Management Framework (EMF)
- 6.7) The South African Constitution [No. 108 of 1996]

It has to be acknowledged that there are other policies as well that can possibly impact participatory processes, but for the purposes of this study, the investigation of the above policies and legislation will be sufficient, because each one of the policies plays a cardinal role in Urban Planning processes and the legislation applies to various fields. These policies and legislation are associated with many decision-making- and development processes where public participation is currently implemented, therefore its direct role in participatory processes will be investigated.

## **6.2 National Environmental Management Act [No. 107 of 1998] – Environmental Impact Assessment Regulations**

This act has been established “to provide for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordination environmental functions exercised by organs of state; and to provide for matters connected therewith.” (South Africa, 1998:2).

Chapter 6 of NEMA is about the public participation process in South-Africa. It firstly gives the conditions under which the person conducting the participation process should function:

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- Fixing a notice board at the boundary or on the fence of the site to which the application relates.
- To give written notice to the owner of the specific land, the occupiers of the site, the owners of the land next to the site, the municipality which has rights/power in the area etc.
- To place an advertisement in the local newspaper and in any Gazette that can give notice to the public of the application on the site.
- To place an advertisement in a provincial or national newspaper, if it falls under certain conditions.
- Using reasonable methods when a person wants to, but cannot, participate in the process, because of disability, illiteracy or any other disadvantages.

Furthermore in these regulations it gives certain guidelines as to how the notice board or advertisement that is mentioned above should be laid out (South Africa, 2010a:60).

- It should give all the details of the particular application;
- It should state other administrative details about the application – who is responsible for what, what the nature of the location is to which the application relates, where more details relating to the application can be obtained as well as details about the assessment and scoping procedures.
- Physical size of the notice boards as well as the format to be used.

The NEMA regulations further take the public into consideration when they state that the person conducting the public participation process must make the information containing all the relevant facts regarding the application available to any potential parties that are interested or affected by the application. Interested and affected parties should be given favourable circumstances to have an opportunity to comment on the application (South Africa, 2010a:61).

This is already an indication that public participation is taken into consideration in South Africa. From the points above it is clear that the public should be acknowledged when a site is related to an application. When a person wants to involve the public, there are clear regulations that should be followed (e.g. notice boards and advertisements) with the sole purpose of informing the public about the specific site and the proposed plans regarding that site. These regulations were established ultimately to give the public a voice.

The NEMA regulations say much more regarding the public participation process. As stated above it is clear that the public should be taken into consideration. By law they should be notified and given the opportunity to comment on sites and possible developments, because it affects them too.

### **6.3 Gauteng Petitions Act [No. 5 of 2002]**

This Act has been established “to provide for the right to submit a petition to the Legislature of the Province of Gauteng; to provide for the general principles and procedures for the submission of a petition to the Legislature.” (South Africa, 2002).

A petition is one method of the public to make their voices heard. In South Africa it is a very common phenomenon. When a group of members do not agree with a certain topic and they cannot reach consensus with the opposing party, they sign petitions to show their discontent. This Act is therefore very important. It does not necessarily discuss public participation directly, but it provides regulations to support the petition process which, as just said, is a tool for the public to participate (in their own special way) when it comes to making decisions that affects them.

The Gauteng Petitions Act (5 of 2002) entails the following:

- Anybody has the right to submit a petition, if it falls under the terms in the Act.
- A petition can be submitted in any official language of South Africa
- The committee that faces the petitioner must:
  - Respect and protect his/her rights
  - Take necessary steps to promote participation by the citizens in Gauteng.
  - Be transparent when it comes to the considerations of petitions.

Furthermore the Gauteng Petitions Act (5 of 2002) states that a petition may be:

- Single – it is submitted only by one individual that is concerned over a specific action.
- Association – it is submitted by one individual that represents an association.
- Collective – it is submitted by multiple individuals – collection of their signatures.
- Mass – It is submitted by an individual or a group, representing a large number of petitioners.

This Act takes public participation seriously. It makes room to accommodate the public and to give them an opportunity to make their voices heard – through signing petitions (Scott, 2009:56). The petition process is not the only way for the public to convey their feelings about a certain subject that concerns them, but it is an important tool to be available for the public to use and to participate in decisions that interests and affect them.

### **6.4 Integrated Development Plan (IDP)**

An Integrated Development Plan is a plan for an area that gives a general framework for development. It aims to improve the quality of life for all the residents of an area. It serves as a tool to plan for future developments in an area. It takes into consideration the existing conditions, problems and resources available for development in an area and provides a framework for development in that specific area. It takes into account how land should be used, what

infrastructure and services are needed and how the environment should be conserved for future use. The IDP also looks at economic and social development for an area as a whole (Education and training unit, 2011).

The IDP plays a fundamental role in Urban Planning and it is a tool greatly used by Planners. According to South Africa (2001:1) the maps and statistics used in the document must be available for the public to inspect. The IDP regulations therefore stipulate that the public must be informed and involved. The regulations also state that the IDP cannot be accepted unless the public has first been given the opportunity to comment or make representations with regard to the proposed IDP.

The 2013/2014 IDP review of eThekweni Municipality in Durban makes it clear that the implementation process of Durban's IDP requires public input. The implementation process of the IDP consists of a few phases and there is a public participation and consultation process associated with every phase (South Africa, 2013:16).

The IDP supports the utilisation of participatory planning and because it is such an important and well-known document used by Planners it sets a foundation for public participation in certain planning processes where the IDP is of cardinal importance.

## **6.5 Strategic Environmental Assessment (SEA)**

According to Enviropaedia (2007) a SEA is "an environmental assessment that is carried out on one or more strategic actions, policies, plans or programmes. Whereas an EIA studies a physical project, the SEA looks at policies, plans, ideas and programmes, which are more difficult 'to touch and feel'."

A SEA is very important because it helps planners to understand, when different land uses are involved, what will happen to an area. It provides information on the consequences of different actions and the environmental impacts they will have in the in the short, medium and long run.

A SEA is a structured, proactive process that strengthens the role of environmental issues in strategic decision-making (Tonk & Verheem, 1998).

It is exactly this decision-making that is so important and SEA's over South Africa have come to realise the importance of it. The SEA of Rustenburg specifically refers to the public participation process (South Africa, 2004:10). According to this document, the public participation process should focus on the involvement (direct or indirect) of the parties that are affected or interested by decisions that have to be made regarding the environment. The document admits that the input, ideas, concerns and vision of the public are very relevant and it will contribute to the management of the sensitive areas surrounding Rustenburg.

They follow the following methodology to ensure that all stakeholders are involved:

- Compile a database of all the relevant parties. They will do this by visiting sites, informal discussions etc.
- Inviting commercial farmers
- Public meetings which includes focus groups. Groups are informed of current projects and their aims. They can give their inputs, ideas and concerns about projects that affects them.

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- Ensure that the public forming part of the larger study area were included (South Africa, 2004:10).

Not only are these measures taken to assist the public participation process, but other approaches are also followed to inform all the interested and affected parties about present projects and they are invited to public meetings (South Africa, 2004:10):

- Publishing articles in the local newspaper.
- Advertisements to be placed at strategic positions in the specific area (shopping centres, police offices etc.)
- Using technology (e-mail, fax and telephone) to send out invitations to all the affected and interested key role players.
- Site visits.

The SEA promotes public participation and acknowledges its importance when it comes to decision-making in any project or topic that affects or interests the public.

Furthermore, a SEA aims to promote sustainable development (South Africa, 2004:2). The environmental pillar of sustainability will therefore be a focus point. By involving the public, the level of sustainability will increase.

### **6.6 Environmental Management Framework (EMF)**

“An EMF is similar to a SEA only that it concerns geographic areas only. The EMF approach includes public participation, status quo assessment and the setting of management actions that can be used to attain the desired state of the environment.” (South Africa, 2004:5).

An EMF is a study to reveal where certain land uses will best be implemented and to provide instructions on how to maintain a sufficient use of a specific land. An EMF, which is a very useful tool for Planners, is clear that it wants to involve the public in its processes. According to the EMF regulations, the first step in initiating an EMF is to inform the public that a draft EMF will be prepared (South Africa, 2010b:191). The draft EMF must be available for the public as well as other interested and affected parties to inspect it and submit comments or recommendations.

According to the regulations the aim of EMF's are to promote sustainability (South Africa, 2010b:191). EMF's are therefore focused on the environmental pillar of sustainability and strives to do so by getting the public involved and providing them with the opportunity to have an input on establishing a final EMF.

### **6.7 South African constitution**

According to The Constitutional Court of South-Africa (2009), the Constitution of South Africa is the supreme law of the country. It provides the legal foundation for the existence of the republic, sets out the rights and duties of its citizens, and defines the structure of the government. It was drawn up in 1996, two years after South-Africa became a democratic republic. The pursuit of strength and unity is one of the main goals of the Constitution and within its regulations there is a strong pattern of citizen involvement and citizen upliftment. The Constitution of the Republic of South Africa (1996) contains the following sections that aim to improve public participation:

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- Section 3(2) – “All citizens are equally entitled to the rights, privileges and benefits of citizenship and equally subject to the duties and responsibilities of citizenship.”
- Section 152(1)(e) – “The objects of local government are to encourage the involvement of communities and community organisation in the matters of local government.”
- Section 195(1)(e) – “People’s needs must be responded to, and the public must be encouraged to participate in policy-making.”

From these sections it is clear that the public is very important for the South African government, especially since 1994 when the country became a democratic republic. The Constitution therefore makes provision for inclusive participatory processes within all levels of government.

Table 12 below summarises the impact of the investigated policies and legislation on participatory processes in South-Africa:

**Table 12: Summary of policies/legislation in South-Africa affecting participatory processes**

<b>Policy/Legislation</b>	<b>Scope</b>	<b>Impact on sustainable development</b>	<b>Impact on public participation</b>
<b>National Environmental Management Act</b>	Environmental governance, most development processes.	Focus on environmental pillar. Establish principles for decision-making on matters affecting the environment. Environmental conservation.	Lays down guidelines/rules on how the public must be informed about issues that affects them.
<b>Gauteng Petitions Act</b>	Citizens of Gauteng Province	Public can submit petitions for social, economic or environmental concerns.	Provide the right to public to submit petitions – a method giving the public a form of power. Public can submit a petition in any sector.
<b>IDP</b>	Urban Planning, any development process	Aims to improve quality of life for all citizens. Tool for future developments, taking existing problems and conditions of an area into consideration. Provide a framework for sustainable developments in these areas.	Information of document must be available for public. Regulations stipulate that public must be involved in establishing an IDP.
<b>SEA</b>	Urban Planning, Environmental governance, most development processes.	Strengthens environmental issues in strategic decision-making.	Stipulates that public participation must be present, involving the parties that are affected by decision made regarding the environment. Admits that input, ideas, concerns

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			of public are very relevant.
<b>EMF</b>	Environmental governance, development processes.	EMF provides instructions on how to maintain a sufficient use of an area. Environmental conservation forms a part of EMF considerations. EMF's aim to improve sustainability.	Public can give recommendations on the content of EMF's. Therefore, the public can participate in environmental management.
<b>South African Constitution</b>	All citizens of South-Africa.	Gives citizens the right to participate in any type of participatory process in any sector (social, economic, environmental and political).	Gives South African citizens the right to take part in any participatory processes, and states that citizens should fulfil their duties as citizens of South-Africa.

Source: Own creation (2013)

It is clear that, overall, public participation is acknowledged and supported by legislation in South Africa. Furthermore, the policies, regulations and laws within the planning sphere all mention sustainable development and aim to improve it. Through the emphasis placed on public participation, it is possible to promote efficient sustainable development by implementing and sticking to the regulations of the policies and laws used by Planners.

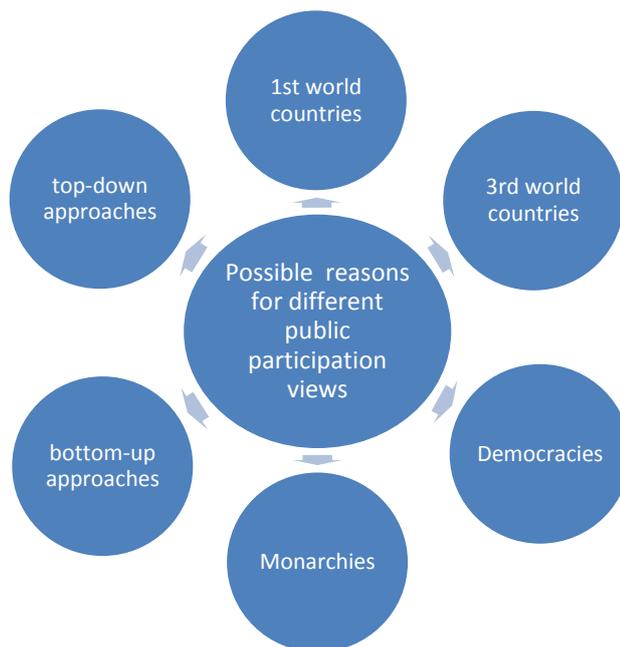
However, even though participatory processes are supported by policies and legislation, the current reality in South Africa still reveals situations of limited, unsuccessful public participation processes. There is a need to identify this theory-practice gap, in order to ensure successful and adequate implementation of public participation processes in South Africa.

# **Chapter 7: Empirical investigation: International views regarding public participation**

## **7.1 Introduction**

Public participation has been described in the previous Chapters, based on a theoretical point of view. It revealed the meaning of public participation, its importance and how legislation in South Africa views it and supports it.

Theory is one side of a coin, practice is the other. Therefore, in this chapter, public participation will be examined from a practical point of view. Public participation is executed in most countries as part of the urban planning process. Investigating the public participatory situation in many countries will provide valuable insight into what the overall view is regarding public participation and identify best practices when comparing the different approaches used in different countries. Figure 23 below illustrates only a few reasons why countries would have different approaches to public participation and why the role of participatory planning differs around the world.



**Figure 23: Reasons countries may implement public participation differently**

Source: Own creation (2013)

Therefore, in this chapter, the execution of public participation in different countries will be the main focus point. In each case study the following will be investigated:

- 1) The view (attitude) towards public participation
- 2) Challenges of executing public participation
- 3) Methods of public participation
- 4) Pilot study

The following case studies were selected based on location considerations, along with characteristics of different backgrounds and cultures. Apart from the difference in social aspects, the economic climate of each case study differs substantially. The political system within each case study is also different, with each government executing its processes in a different way. Lastly, the demographics (number of participants) vary within each case study. Each of these factors is crucial within participatory processes and plays a fundamental role in the execution thereof. Each case study is vastly different from the other, therefore portraying an accurate image of the international views toward public participation.

### **7.2 Case study: India**



**Figure 24: Location of India**

**Source: Own creation (2013)**

India is the seventh largest country by area and the second most densely populated country in the world (BBC news Asia, 2013). Although India has a fast-growing economy it still has social, economic and environmental problems. It is because of these problems that public participation can actually play a part in enhancing the current state of the country. The population size can actually be very beneficial to Planners who want to execute public participation, because the more participants there are to participate in decision-making processes, the better the outcome of the decisions will be.

#### **7.2.1 View regarding public participation**

India is a country with internal and external pressure (Seaba, 2006:3). These pressures firstly come from the Indian government, because they want the country to flourish. It is unfortunately very difficult to do this, because of the population size. There is thus constantly pressure on the country to perform and feed its citizens. Secondly, it comes

from around the world. India is known for its trading business (Singh, 2009:181) and therefore there are expectations from other countries resting on India's shoulders.

These pressures have led India into adopting and implementing participatory approaches with the hope of improving natural conservation and eco-development (Seaba, 2006:3). In India, there has been an increasing urge amongst the citizens to be better informed and to participate in policy development and management. The citizens therefore want to be part of decision-making processes in the country and they want to be able to influence processes in their country and ultimately improve their living conditions, which in large parts of India, are terrible. According to Seaba (2006:16) citizens have started to put pressure on the government to such an extent that it led to changes in legislation and certain policies. These successes of the public resulted in other "participatory planning achievements". One-way flow of information, where local authorities merely inform citizens of decisions that affect them, evolved into a two-way flow of information, where there is communication between citizens (feedback) and local authorities to decide over development issues that affect both parties (Lunenburg, 2010:3).

The view regarding public participation is changing in India. It was a British colony many years ago, but even after it was declared an independent nation in 1947, the public was seen as only legal entities and were not part of any decision-making processes (Janaagraha - ARP, 2011:3). As years passed, though, the country started to change the way it viewed the public. Today the public is more valuable and they are more involved in decision-making. The government of India started to realise the importance of the public in decision-making.

### 7.2.2 Methods

The United Nations (2003:18) states that in Asia there are many different methods and techniques being used to increase public participation. Seaba (2006:3) states that various forms of participation have been developed in India to uplift community-based development. Just from this statement it can be assumed that public participation in India, which has such a huge population, is taken seriously and the government wants the public to get more involved. According to the United Nations (2003:19) countries in Asia, like India, implement the following methods to improve public participation:

Table 13: Public participation techniques in Asia/Pacific

Method/Technique:	Description:
<b>Public hearings</b>	Gathering of the public at a predestined location to have an open discussion about matters that concern them. This is a very traditional method in Asia.
<b>Community forum</b>	It is based on one or more public hearings where the residents are welcome to express their concerns and give opinions about certain projects that affect them. At these forums citizens can also be informed of potential community activities. Here the public can also give feedback on previous decisions that have been implemented.
<b>Citizens juries</b>	A group of 15-20 citizens who are randomly selected. These selected few represent their community. They discuss matters among themselves and then reach a

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	consensus.
<b>Surveys</b>	Includes asking the public questions about matters that affect them. Participants can also be asked for ideas about a certain project. In Asia this is by far the best and most inexpensive way to gather information from a large number of community members.
<b>Interactive website</b>	Such a website may be created by an agency that seeks public participation and therefore relevant information and suggestions. They can also monitor complaints from the community. This method, however, is dependent on the extent of Internet connection in an area. Asia has many rural areas with no Internet access, thus this method will not be very successful in many areas.
<b>Workshops</b>	“Workshops can be organised with participation of all stakeholders to prepare a plan or formulating guidelines to prepare such a plan.” Workshops can also be used to transfer knowledge and information. Normally the Planner of local authority acts as facilitator at workshops.
<b>“People’s Plan”</b>	Residents take advantage of legislation to prepare their own plans. This is the highest level of public participation in Asia, but it is also very rare.

Source: United Nations (2003:18-20); Seaba (2006:66)

The reality is that, because of the large and dense population, it is difficult to effectively execute public participation. Not every citizen in a community can be reached. Although the participation methods in the above table correlates with traditional methods, mentioned in section 3.6, the variety of methods is important for Planners in India considering the dynamics of the public.

7.2.3 Challenges

As a third-world country with such a large population there is bound to be certain participatory challenges. The size of the population makes it difficult to execute effective public participation, because it is not possible to reach the majority of the citizens and hear their opinion on a certain matter that concerns them (Janaagraha - ARP, 2011:2). Not only can this lead to less accurate decisions being made, but also unhappiness from the general public, as they might feel that the government or local authorities are not putting enough effort into getting the public more involved in decision-making processes. Local authorities therefore, in some cases, need to use innovative methods of public participation to ensure more residents have a say. According to the Janaagraha Applied Research Program (2011:2) Indian societies are very traditional and diverse, meaning that it is a challenge for Planners and local authorities to take every citizen’s background and beliefs into consideration during participatory processes.

In large parts of India, communities do not have the resources for proper education. The result of this is that it can be difficult for Planners or local authorities to inform communities about certain developments, because the communities will not understand it. According to Seaba (2006:66) the Bhyundar Valley in India is an example where the low

literacy rates forced authorities to engage the local communities in face-to-face meetings. Other, perhaps normally more effective, methods of participation could not be implemented.

In terms of the conservation of protected areas in India, Seaba (2006:30) mentions that the central government believes the environmental problems in the country are mainly due to the population size and density. This belief has led authorities to exclude people from the decision-making processes of national protected areas. One can understand the government's concern, but by excluding the public, imbalances between the roles of the private- and civic sectors and the public in the management of environmental issues could arise. A healthier balance is therefore imperative.

### 7.2.4 Pilot study: 2012 ERC of Bangalore

The Environment Report Card (ERC) is a result of the efforts by the Centre for Sustainable Development to investigate the perception of the the citizens in Bangalore of the surrounding environment. The main objective of the report is to derive at the factors that undermine the environment in Bangalore. The authorities in Bangalore identified thirteen key issues, which have an effect on the environment. The authorities investigated each one of these thirteen issues and got the local community, consisting of different income groups, to rank them from a high priority to a low priority. The six issues, which according to the citizens of Bangalore needed the most attention, were further investigated. These issues, in descending order of priority, are (Prasad *et al.*, 2012:24-38):

- Water adequacy;
- Quality of water;
- Air quality;
- Vehicular traffic;
- Municipal waste disposal; and
- Drainage.

The community played a key role in every one of these important environmental issues. During the investigation of each issue, surveys were completed by the public to guide the local authorities in their investigation. From the surveys, it was possible for the authorities to draw numerous tables and graphs, which indicated certain focus areas. Figure 25 below is an example of one of the graphs drawn up during the investigation of the air quality issue. From the graph one can see that the citizens living in the eastern side of Bangalore were the most dissatisfied regarding the air quality.

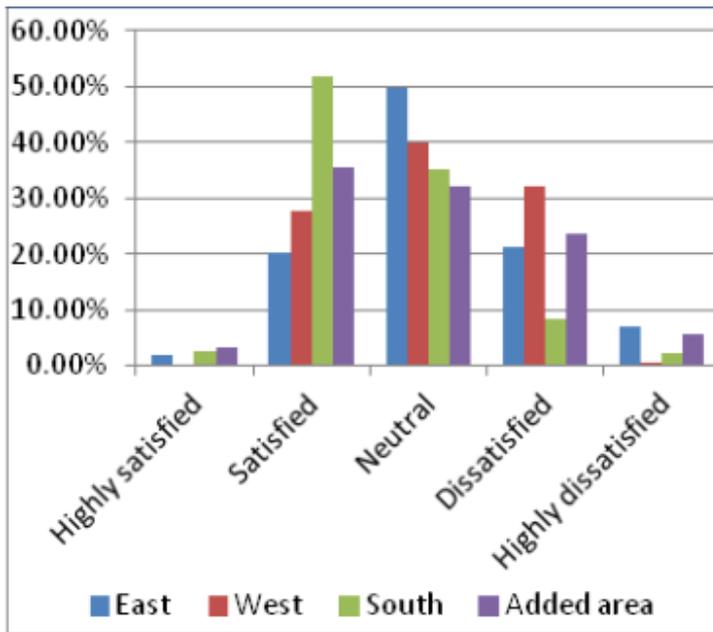


Figure 25: Satisfaction with the quality of air

Source: Prasad *et al.* (2012:29)

This information led local authorities to act accordingly. The communities made it clear that they believed the quality of air was also affected by the heavy vehicular movement in the city. The situation was investigated and it was realised by local authorities that this was actually true. The public therefore assisted in the overall environmental analysis of Bangalore and therefore also in the writing of the Environment Report Card of the city (Prasad *et al.*, 2012:29).

India is a third-world country and it is possibly not yet where it should be in terms of public participation, especially when it's taken into consideration that its population is huge. The size of the population actually stresses the need for effective participatory processes. There are quite a few challenges the country has to face and overcome to improve the efficiency of public participation in the country. It is nonetheless moving in the right direction by getting the public more and more involved, as seen in the Pilot study. A number of participatory methods are being implemented in the country which are positive, although they are mostly "traditional methods", mentioned in section 3.6. The use of newer, computerised models has not been implemented to its full potential as yet. The main reason for this is the high poverty rates and literacy constraints. However, it can probably be implemented more and more in the future.

### 7.3 Case study: Uganda



Figure 26: Location of Uganda

Source: Own creation (2013)

Located in East Africa, Uganda has a population of about 34 million people. It became an independent nation in 1962 (Uganda tourism, 2013). The country's political background was characterised by monarchies, and in central Uganda this is still the case, although the overall political system (including all parties and tribes) can be described as a "multiparty democratic republic" (Infoplease, 2005). The democracy in the country makes it possible for the public to be involved in many of the decision-making processes. However, as a third-world country there are certain challenges to overcome to improve the participatory processes even more.

#### 7.3.1 View regarding public participation

From a social and political point of view, Uganda seems to be very inclusive when it comes to participatory processes. Whether in politics or environmental issues, Uganda strives, to a large extent, to include communities in decision-making processes.

In 1987, the Ugandan government initiated a decentralised system of governance (Kalemera *et al.*, 2012:2). The aim of this initiative was to enhance the influence of the public in decision-making and service delivery processes by investing some of the government's "power" and responsibilities in the public and local government. According to Kalemera *et al.* (2012:2) the government needed to raise its efficiency in service delivery and that is why it started to get community members more involved. Furthermore, in 1995 the constitution of Uganda made provision for freedom of speech and expression. Citizens were also given the right to have access to information. The country was one of the first countries in Africa to implement these freedom laws to the public (Kalemera *et al.*, 2012:2). Kimani (2010:209) comments that Uganda's environmental governance frameworks are known to be one of the more effective and functioning environmental frameworks in that part of Africa, compared to that of Tanzania and Kenya. Legislation is therefore one of the aspects which assists greatly in the implementation of public participation in Uganda.

The Ugandan government wants community members to get involved when it comes to decisions that have to be made. They do not give information to the public because legislation forces them to. One of the workers in the Ugandan environmental department said the following: "We don't mind. We are all on the same pro-environment team, and at the end of the day it is the environment that wins" (Kimani, 2010:211). This indicates the positive

attitude of the government towards public participation. Participatory processes are therefore being approached as a welcoming feat and not something disadvantageous that could hamper the functionality of governmental processes. Furthermore, it is interesting to note the attitude of the Ugandan citizens regarding the power and responsibility that have been given to them by the government. Kimani (2010:213) mentions that in Uganda there was a case from a Non-Governmental Organisation (NGO) to prohibit smoking in public. The reason for this was that smoking violated citizens' right to a healthy environment. The case was successful and although smoking in public has not completely stopped, there is an increased level of sensitivity from the public toward individuals who smoke in public. This example shows the extent of the "power" the public has on legislation in Uganda. The public strives to improve processes in the country and they take their role in the whole decision-making process very seriously.

### 7.3.2 Methods

Because of Uganda's strong view regarding public participation, as discussed in the previous section, the country has a series of traditional tools they use to notify the citizens of information they need to know. Two research studies were used for this section: A study regarding the political system in Uganda and an environmental conservation study. These studies were chosen, because they used public participation for different reasons.

Table 14: Traditional participation tools used in Uganda

Tools	Description
<b>Political arena</b>	
<b>Interviews</b>	Structured discussions between two or more individuals to exchange information and opinions regarding a matter that affects them.
<b>Focus groups</b>	A small group whose response to something(i.e. the development of a shopping mall) is studied to determine the response that can probably be expected from a larger group (i.e. the rest of the population).
<b>Questionnaires</b>	Authorities sending out questions on papers which the public can choose to fill in and send back.
<b>Print media</b>	Posters or advertisements in newspapers.
<b>Environmental conservation arena</b>	
<b>Interviews</b>	Structured discussions between two or more individuals to exchange information and opinions regarding a matter that affects them.
<b>Focus groups</b>	A small group whose response to something(i.e. the development of a shopping mall) is studied to determine the response that can probably be expected from a larger group (i.e. the rest of the population).
<b>Meetings</b>	Gathering of the public at a predestined location to have an open discussion about matters that concern them.
<b>Advertisements</b>	In local newspapers or magazines, as well as posters.

Source: Kalemera *et al.* (2012:5-7); Ahebwa *et al.* (2012:307)

It is interesting to note that basically the same methods are used in different sectors of the government. There is thus uniformity in the government regarding their public participation approaches. In terms of traditional methods of public participation, there is not much variation. Although Uganda does not have a very large population (in comparison with India), it is still worthwhile to have a variety of methods to utilise, especially with a population that wants to be involved as much Ugandan communities.

### 7.3.3 Challenges

Uganda, being a very “spirited” country and not having a large population, still has a numerous challenges that hinders it from being even more successful in its public participation processes.

Kalemera *et al.* (2012:3) mentions that there have been attempts to interfere with citizens’ participation activities. Although they specifically talk about “online activity”, one cannot help but wonder if the Ugandan government meddles with other forms of public participation.

It is difficult to reach high numbers of communities, because few Ugandan citizens embrace public participation tools. A low number of communities are actually reached. What makes this worse is that there are financial constraints that hinder public participation processes even further. Finance is always a problem, especially in third-world countries like Uganda. The initiation of projects to investigate the opinion of the public, regarding a certain situation, is very costly and Uganda doesn’t necessarily have the financial capability to initiate all these projects (Kalemera *et al.*, 2012:20).

As mentioned earlier, Ugandan citizens are very eager to be part of participatory processes. This is a very good sign, but what tends to happen is that the public puts pressure on Urban Planners and the government. They have very high expectations of the government and, if time is limited, it can force local authorities to act quickly, leading to less accurate results and a very dissatisfied public (Ahebwa *et al.*, 2012:315).

As in India, language and literacy is a barrier. It is difficult for authorities or private organisations, like Urban Planners, to access local communities, because of this aspect. Communication is essential in participatory processes, and if communication is difficult, the whole process is hindered (Kalemera *et al.*, 2012:20). Following this is the fact that the methods which are used are not promoted well enough among the public. Community members are not always well informed of where meetings will be or where they can turn up for interviews. Again it comes down to communication issues.

From a social, political and economic point of view, women are put at a disadvantage. This can pose a challenge for effective public participation, as women are also part of the public and have opinions regarding certain situations. Authorities and Urban Planners should avoid putting them at a further disadvantage in participatory processes, but rather come up with strategies to include women just as much as men (Kalemera *et al.*, 2012:21).

### 7.3.4 Pilot study: Bujagali Hydroelectric project

The Nile, the world’s longest river, flows out of Lake Victoria in Uganda. At that specific point, many years ago, there was a waterfall, called the Rippon Falls. These falls do not exist anymore, due to the construction of the Owen Falls

Dam, a hydroelectric power dam which was built in 1954. Nine kilometers further down the river strong rapids are found, called the Bujagali Falls. Starting November 2011, the falls have become submerged by the newly built 200-megawatt Bujagali Dam (International rivers, 2011).

There are pro's and con's that were investigated prior to the construction of the dam. It was argued that the dam would address the energy crisis the country experienced, but on the other hand International rivers (2011) stated that the dam's power would not make provision for the power shortages there already were. It was said that the construction of the dam would harm fisheries, harm Lake Victoria and affect the lives of approximately 6800 citizens. Therefore a public participation process was undergone to establish what the citizens thought about the construction of the dam.

It was very important to raise public awareness of the project (Kakuru, 2006). The project leaders did this by means of a series of methods. Firstly they identified the different stakeholders they needed to get involved. Among the many stakeholders were the national public, Non-Government Organisations, local communities, tourists and business operators (R.J. Burnside International Limited, 2006:29-30).

Secondly, they used multiple methods to disseminate the information to all the relevant stakeholders. Project organisers set the Environmental Impact Assessment (EIA) in motion by advertising the project, and waiting for comments at a public hearing. Radio and television shows featured issues related to the project which kept citizens informed. Workshops and seminars were held to inform community members of the project and provide them with opportunities to raise questions and give their opinions regarding the project (Kakuru, 2006:2-4).

It was crucial to promote accountability and transparency, therefore Bujagali Energy Limited (BEL), who was in charge of establishing an integrated Social and Environmental Action Plan for the project, made all their documents, including the Strategic Environmental Assessment (SEA) available and easily accessible for the public.

Grievance mechanisms were put in place for the public to complain about anything regarding the project. A grievance form was prepared and was available to the public (R.J. Burnside International Limited, 2006:37).

After the public was informed and their comments were analysed, numerous issues were derived from the data. Firstly, the public was interested in community development opportunities that would result from the dam's construction. Secondly, workers in the tourism industry expressed their concern that they could lose their jobs once the dam project began. Furthermore, communities expressed their concerns about the increase in traffic, which would lead to higher safety risks for the local community members. Lastly, some community members (especially fishermen) complained that their access to the river would be limited due to fencing around the construction site and were afraid that the access to the river could be limited even further (R.J. Burnside International Limited, 2006:30-33).

There were many more enquiries/concerns from the public. The project leaders took these issues into consideration and strived to come up with solutions for the issues. They dealt with many of the issues and the project was accepted and approved by the government, as seen in the figure below.



Figure 27: The Bajugali hydro power project

Source: Str8talk (2013)

As a country with not many resources, Uganda is being quite successful in getting the public involved in decision-making processes. The attitude of the public is very optimistic which makes participatory processes very effective in Uganda. Project sustainability, addressing inequality, promoting awareness and literacy levels are some of the issues that are very important to improve the functionality of public participation in Uganda. Public participation will benefit greatly if these factors can be focused on.

#### 7.4 Case study: European Union



Figure 28: Location of EU

Source: Own creation (2013)

The European Union (EU) consists of 28 states, which include France, Germany, Italy, Spain and the United Kingdom. The European Union countries differ from the previous countries which were investigated, in the sense that it consists of first-world countries, with more financial support and resources. It originated in the 1950's with only 6 countries. Through the years it has grown into the European Union of today.

#### 7.4.1 View regarding public participation

Upon investigating the situation regarding public participation in the European Union, it became clear that legislation plays a cardinal role in the control and execution of participatory processes. Documents such as the Lisbon treaty set up frameworks for democratic governance in terms of public participation. The treaty states that the EU must give equal attention to all its citizens and that there must be an ongoing interaction between EU institutions and its citizens (Aparajita *et al.*, 2011:60-61).

As already stated, legislation “controls” the participatory processes in the EU. Institutions strictly follow this legislation. Some documents recognise that transparency enables citizens to participate more effectively in decision-making processes. It therefore gives EU citizens the right to access information of EU institutions.

The European Citizens’ Initiative (ECI) is an initiative that came forth from the Lisbon treaty. According to Haydon (2012) the ECI “allows members of the public to call for new European laws on issues of their choice, provided they have a million supporting signatures from at least seven member states.” The ECI represents a significant step towards improved public participation in the EU.

Furthermore, European institutions have started to recognise the importance of NGO’s in the process of effective public participation (Aparajita *et al.*, 2011:62). NGO’s serve as megaphones for the public and they are a very important medium for community members to connect with European institutions.

Overall the EU has a positive and welcoming attitude towards public participation. It agrees that public participation is very important in decision-making processes and that it is needed to maintain a positive attitude among communities and countries that form part of the EU.

#### 7.4.2 Methods

As mentioned earlier, the UN consists of first-world countries. This makes the financial situation different from the third-world countries already investigated. The financial situation makes the implementation of participation methods much more realistic. Resources such as finance, knowledge and skills make viable the implementation of a bigger variety of traditional participation methods . A variety of methods are available to choose from, as EIPP (2009:34) shows in the following table:

**Table 15: Methods which can be used in the EU**

<b>Methods</b>	<b>Description</b>
<b>Public hearings</b>	Gathering of the public at a predestined location to have an open discussion about matters that concern them.
<b>Citizens’ juries</b>	A group of 15-20 citizens who are randomly selected. These selected few represent their community. They discuss matters among themselves and then reach consensus.
<b>Surveys</b>	Includes asking the public questions about matters that affect them. Participants can also be asked for ideas about a certain project.
<b>Town meeting</b>	Gathering of a town community at a predestined location to have an open discussion

	about matters that concern them.
<b>Focus groups</b>	A small group whose response to something (i.e. the development of a shopping mall) is studied to determine the response that can probably be expected from a larger group (i.e. the rest of the population).
<b>Work shops</b>	“Workshops can be organised with participation of all stakeholders to prepare a plan or formulating guidelines to prepare such a plan.” Workshops can also be used to transfer knowledge and information. Normally the Planner of local authority acts as facilitator at workshops.
<b>Advertisement</b>	In local newspapers or magazines, as well as posters.
<b>Interview</b>	Structured discussions between two or more individuals to exchange information and opinions regarding a matter that affects them.

Source: EIPP (2009:34)

The type of method used is influenced by a series of factors i.e. the size of the participating community, the culture of the citizens and even the age of the participating target group (EIPP, 2009:32-33).

The EU, being a first-world union, is characterised by their technological advances. The EU therefore incorporates the use of technology more in their methods (EIPP, 2009:32-33). Online methods are very common as well as other computerised methods. This will be investigated further in the following chapter.

### 7.4.3 Challenges

The EU, being in a better position than India and Uganda, in terms of financial resources, knowledge and skills, has other challenges to face that still prevents it from being effective in its participation processes. As mentioned above, the EU has a variety of methods to choose from. The truth is that not many of these methods are implemented in projects, because administrative procedures, as noted in legislation, make it very difficult to use some of the methods and time and effort has to go into implementing certain methods. Aparajita *et al.* (2011:61) state that although EU citizens are allowed to access certain documents that provide information, they must follow certain procedures before they can get access to the information. Legislation and regulations determine these procedures. If institutions follow these procedures to the bone, many citizens will give up on accessing information they might be interested in, because they do not want to go through extra effort to get access to information. This might lead to decreased levels of public participation (Aparajita *et al.*, 2011:61). The European Commission (2012) mentions that “European citizens feel somewhat alienated from the Union’s institutions and do not understand well how they function.” This is partly due to the effort citizens have to go through to be better informed of a development or an activity that affects them.

7.4.4 Pilot study: Kindergarten in Karlovac – Croatia

Karlovac has numerous civil society organisations, but these organisations still struggle to involve citizens effectively in community planning.

It is a relatively small town with approximately 65000 inhabitants. The Centre for Civil Initiatives (CCI) started with a project to uplift one of the education facilities, a kindergarten school with 90 children attending the school. The CCI hoped to bring more unity and peace to the neighbourhood.

The project began with a community assessment. The goal was to find out what the composition of the local community was. In this process surveys and questionnaires were utilised to help gathering information.

The next step was to identify the problems in the district surrounding the kindergarten and to decide on a plan of action. A series of challenges were identified as concerns for the inhabitants: Lack of well-equipped sports, children and recreational facilities, irresponsible behaviour of dog owners, damaged green areas and hygiene issues at the kindergarten. The CCI concluded that improving the urban environment around the kindergarten was the main aim of the project and specific objectives were to improve the playgrounds of the district and the quality of the sports and recreational facilities.

The CCI used numerous methods to get the inhabitants involved in the project. As already mentioned surveys and questionnaires were used. Furthermore small task groups were formed from teachers, parents and other inhabitants who wanted to be actively involved. One task group focused on raising funds for the project and another group focused on raising awareness among the general public about the situation at the kindergarten.

The project was a success and the community benefitted in a couple of ways. Firstly, the kindergarten was visited by representatives of the city, who decided to provide assistance, in the form of machinery, to help build a fence around the kindergarten. Secondly, the teachers at the school got more motivated to teach at the school and to initiate more community projects. Finally, members of the CCI assisted the kindergarten further by educating the parents, city officials and city citizens about new approaches towards community issues and problems, which would help in organising and executing future community projects (Forbrig & Despotovic, 2011:34-38).

**7.5 Conclusion**

The tables below provide a summary of the case studies investigated in this chapter. All of the case studies were found to be successful with regard to their participatory planning approaches, recognising the unique challenges, methods and approaches to sustainable development that apply within each of the case study areas.

Table 16: Summary of international case studies regarding participatory approaches

Case study	Views	Challenges	Methods	Sustainable development	Successful
India	<ul style="list-style-type: none"> <li>• Busy changing from top-down to more bottom-up</li> <li>• Pressurised to</li> </ul>	<ul style="list-style-type: none"> <li>• Size and high density of population.</li> <li>• Difficult to take</li> </ul>	<ul style="list-style-type: none"> <li>• Variety of traditional methods.</li> <li>• Difficult to</li> </ul>	<ul style="list-style-type: none"> <li>• Wants to improve sustainable development.</li> </ul>	✓

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	<p>perform and flourish.</p> <ul style="list-style-type: none"> <li>• Urge to improve participatory processes.</li> <li>• Citizens want to be involved.</li> </ul>	<p>every tradition/belief into consideration.</p> <ul style="list-style-type: none"> <li>• Lack of resources in communities.</li> <li>• Illiteracy.</li> </ul>	<p>implement methods, due to high density communities.</p>	<ul style="list-style-type: none"> <li>• Focus on environmental conservation.</li> <li>• High density population makes it a priority.</li> </ul>	
<b>Uganda</b>	<ul style="list-style-type: none"> <li>• Naturally very inclusive in its processes.</li> <li>• Legislation to enhance public participation.</li> <li>• Sees public participation as beneficial to decision-making.</li> <li>• Citizens are extremely willing to participate.</li> </ul>	<ul style="list-style-type: none"> <li>• Have been previous accounts where government interfered with participatory processes.</li> <li>• Lack of resources.</li> <li>• Communities puts pressure on government to act, therefore decisions can be made hastily.</li> <li>• Illiteracy.</li> <li>• Gender inequality.</li> </ul>	<ul style="list-style-type: none"> <li>• Variety of traditional methods.</li> <li>• Optimism towards participation enhances efficiency of methods.</li> <li>• Use same methods in different sectors of government.</li> </ul>	<ul style="list-style-type: none"> <li>• Public participation in all sectors: Social-, economic-, environmental issues.</li> <li>• Lack of resources forces Uganda to strive for sustainable practices.</li> </ul>	✓
<b>European Union</b>	<ul style="list-style-type: none"> <li>• Legislation plays fundamental role – guides, sometimes “controls” participatory processes.</li> <li>• Legislation stipulates that citizens must receive equal attention from the EU.</li> <li>• Welcoming attitude towards public participation.</li> </ul>	<ul style="list-style-type: none"> <li>• Legislation leads to administrative work for authorities, therefore many different types of methods are not implemented.</li> <li>• For citizens to get access to certain information they must fill in paperwork, discouraging them from engaging in participatory processes</li> </ul>	<ul style="list-style-type: none"> <li>• More financial resources, therefore more methods to work with.</li> <li>• Easier to implement effective methods, due to knowledge and skills of citizens.</li> <li>• Characterised by technological advances.</li> </ul>	<ul style="list-style-type: none"> <li>• High level of development leads to sustainable initiatives being implemented.</li> <li>• Public participation in all sectors: Social-, economic-, environmental issues.</li> </ul>	✓

Source: Own creation (2013)

The following table illustrates a SWOT analysis of international participatory approaches.

Table 17: SWOT analysis of the international participatory approaches

<b>International approach</b>			
<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• More effort is put in developing creative participatory methods.</li> <li>• Many countries (i.e. The Netherlands) are developed countries, therefore they have more resources to work with.</li> </ul>	<ul style="list-style-type: none"> <li>• Methods are creative, but not as human driven as it should be.</li> <li>• In certain parts of the world, the public is used only for political benefits.</li> <li>• Countries with very dense populations find it difficult to execute</li> </ul>	<ul style="list-style-type: none"> <li>• Creative methods lead to better participation.</li> <li>• Developed countries have more resources, therefore more opportunities.</li> <li>• In developed countries, poverty and education is not an issue, thus other</li> </ul>	<ul style="list-style-type: none"> <li>• If methods do not become more bottom-up communities may become unhappy.</li> <li>• Competition with other countries is a reality and the public's interests could be lost in the process.</li> </ul>

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<ul style="list-style-type: none"> <li>• Large variety of public participation methods</li> </ul>	<p>participatory processes.</p> <ul style="list-style-type: none"> <li>• Challenges such as poverty, poor access to adequate information and lack of effective communication between citizens and government.</li> </ul>	<p>factors, such as sustainability, could be focused on.</p>	<ul style="list-style-type: none"> <li>• Certain modern societies characterised by declining voter turnout and a reluctance of citizens to state their opinion.</li> </ul>
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Source: Own creation (2013)

By comparing different countries around the world, with different backgrounds and different amounts of resources at their disposal, it was possible to investigate the view and attitude towards public participation at a global scale. The methods used around the world to get the public involved in decision-making processes, and the challenges that have to be faced, were also investigated to create an accurate picture of how the rest of the world approaches public participation.

This chapter specifically focused on traditional methods of participation. In the following chapter, technological advances will be investigated and, similarly to this chapter, different countries will be investigated to reach a conclusion regarding the state of technology utilisation in participation processes around the world.

## **Chapter 8: International context - Technology initiatives to enhance public participation**

In the previous chapter, international views towards public participation were investigated. It was evident that the overall view towards public participation shared many similarities. Third-world countries shared a more grass-roots approach, while first world countries tend to be very dependent on legislation to guide its participatory processes. The participatory methods used in different parts of the world were also investigated, as well as the various challenges that are being faced in these different countries. These investigations are related to current traditional approaches to public participation, but the world is characterised by technological change and therefore it is necessary to also investigate the effects and impact of technological advances within the public participation arena.

### **8.1 Introduction**

The increased utilisation and advances in technology were also evident in the participatory planning methods. Online methods and tools are getting very popular around the world, as well as other computerised methods. Many of these methods are described in section 4.2.1 of this study. Everything is getting more computerised and it seems to be beneficial in most fields. In the public participation arena, there are many positive attitudes regarding the implementation of computerised methods. Yao (2006:5) states that “electronic participation has generated considerable interest among policymakers and scholars due to its potential to facilitate more efficient and more deliberative interaction between citizens and government.” He suggests that it is more efficient in the sense that a larger group of community members can be reached in an easier and quicker fashion. The study of Dewulf & van Meel (2002:238) indicated that “protagonists of participatory design regard inter- and intranet applications as an excellent opportunity to provide direct, two-way communication of visual, dynamic ideas about buildings and interiors. The visual aid computerised methods provide is very beneficial when working with the public, because they want to see with their own eyes what a development will look like before they can make any meaningful contributions to decision-making processes.

With this being said, it is necessary to investigate the international attitude of governments and Planners toward the implementation of technology-based methods in public participation processes. What happens in reality is the focus point and can be deducted by investigating various case studies around the world, where technology has been used in public participation processes. The same case studies investigated in the previous chapter will be used again in this study to provide meaningful insight regarding the international attitude towards the implementation of technology in public participation processes.

### **8.2 Case study: India**

As mentioned in the previous chapter, India is a third-world country with the second largest population in the world. This makes the need for effective public participation even more important. The use of computerised methods in India may therefore be very beneficial, because large quantities of community members can be reached.

Andersen *et al.* (2007:29) talks about e-participation in India. It involves the interactions on democratic issues between community members and politicians. This includes elections, political petitions and consultations. E-participation is the result of technological innovation, as the political processes in e-participation occurs over the Internet. It is a method the government in India is trying to implement to improve their relationship with the public. According to Janaagraha – ARP (2011:6) the goal of e-participation is to gather information from citizens, to make information accessible to the public and to reach as many citizens as possible in consultation programs. Although there are benefits to e-participation in India, it is important to take note that its potential is limited to citizens with literacy skills as well as the fortunate citizens who possess a cell phone or Internet (Janaagraha - ARP, 2011:6). In India, with the number of citizens, there are millions of illiterate citizens who do not know how to work with a computer. Many citizens will therefore not be able to benefit from e-participation methods.

### 8.2.1 Pilot study: Irrigation canal – Thrissur, Kerala

Although this case study has a political nature, it is very relevant to this study and illustrates the effectiveness of technology-based methods in public participation processes.

The canal, located in the city of Thrissur, Kerala, has a rich agricultural history and is a very important source of water for the local community members. It prevents flooding in the surrounding areas and therefore it plays an important role in the community.

The community members of Kerala were very upset due to the pollution of a water canal. The pollution came from the textile industry and hospital surrounding the canal, dumping all its waste into the canal, which leads to ponds and wells in the area. This pollution affects the health of community members and leads to serious diseases and other ailments (Alathur *et al.*, 2012:396).

The residents near the canal participated in an e-petitioning system in 2008, 2009 and 2010 to make known to the government that they are dissatisfied with the polluted water in the canal, and that the dumping of waste in the canal by the industries and hospital should be stopped. E-petitions are online applications where citizens can sign petitions against certain issues that grieve them (Andersen *et al.*, 2007:32). According to Alathur *et al.* (2012:394) e-petitioning it is a tool used by community members to represent their powerlessness to the government. Citizens can also receive feedback from authorities regarding the issue at hand.

A large number of community members made use of this tool to inform the government about their dissatisfaction. Although the government took notice of the petition, the pollution of water in the canal did not stop. Pollutants were being stored during the day and at night the industries would then dump it into the canal.

Although the problem is not completely resolved for the community, it is for this study, still important to note that the e-petitioning system did not go to waste. The government noted the problem at hand and took action, although their actions were not strict enough to stop the pollution of the canal completely (Alathur *et al.*, 2012:398).

This case study is an example of how effective online participation can provide isolated citizens with an opportunity to raise their concerns so that authorities can take note of it. In this specific case, the concerns of the public could not be completely resolved, but the community achieved more than they would have if they could not participate online.

India is growing in terms of population levels, its economy, developments and political power. This growth means that open space is decreasing. More efficient planning is needed in India and by using technological innovation, such as e-participation and e-petitioning, India's government can get one step closer to functioning better and more efficiently. As a third-world country, it is difficult to implement computerised tools in participatory processes, because millions of citizens in India do not have access to the Internet or they are illiterate. Apart from these issues, India is trying to implement these methods more and more. They realise that it is ideal to use these methods, because of the size of the Indian population. India is implementing computerised public participation methods, but it is not yet where it can be. It is, though, improving and becoming more known among the Indian public.

### **8.3 Case study: Uganda**

Uganda is also a third-world country that, in some aspects, puts it in the same boat as India. The citizens of Uganda area also categorised by low literacy levels and access to computers and the Internet are limited. Only 14% of the total population has access to the Internet (Kalemera *et al.*, 2012:1). The implementation of computerised methods can therefore be very challenging. It must be emphasised though, that the attitude of the citizens in Uganda is very positive towards public participation (Kimani, 2010:213) and this may have an effect on the functioning of technology-based public participation methods.

E-government, also seen in India, has enjoyed more attention in Uganda over the past couple of years. In 2003, Uganda adopted a national Information and Communication Technology (ICT) policy, with the goal of improving community engagement and to increase government transparency ultimately to provide better services to the public (Kalemera *et al.*, 2012:3). In 2010, Uganda completed the policy with the following principles in mind, to "encourage citizen participation" and to "ensure access to IT services to men and women in both rural and urban areas" (Kalemera *et al.*, 2012:3). Furthermore, the National Development Plan of Uganda includes the promotion of ICT in Uganda. It is clear that the Ugandan government wants to increase and upgrade the utilisation of technology in their public participation processes. The Ugandan government wants community members to get involved when it comes to decision-making and they know that more community members can be reached using technology-based participation methods.

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Whether in its early stages or not, the Ugandan government has started using a series of ICT tools to improve its public sector and the transparency of the government. In a study done by Kalemera *et al.* (2012:6) the different tools used by the government in Uganda were investigated. Table 18 illustrates their findings concerning the type of tool used as well as what percentage of the population are using these tools.

**Table 18: Different ICT based tools used in Uganda**

Method	Percentage use (%)
Social media	68
Web portals	50
Emails	77
Discussion groups	50
eForums	41
Television	50
Radio	68
SMS campaigns	68

Source: Kalemera *et al.* (2012:6)

It is clear that there are numerous ICT-based tools already used in Uganda. They may not yet be very efficient, due to the low percentage of citizens who have Internet and the knowledge access these tools, but nonetheless it is there.

### 8.3.1 Pilot study: 2011 elections

In 2011, one year after the ICT policy was completed, political parties in Uganda immediately recognised the potential of online participation and the possible impact it could have on their campaigns. Political parties therefore used ICT in numerous ways during the 2011 elections. The methods ranged from social media to party websites.

The most popular method was the party websites. On these websites, citizens could find numerous sources of information that would help them decide which party to vote for. Citizens could download campaign speeches as well as party manifestos, stating what each party's intentions were and what their aims were for the upcoming term. This was extremely beneficial to citizens with Internet access. Furthermore, citizens could read the newest news regarding the elections and they could provide feedback on any document or piece of information that was available on the website. Websites were created to be very simple, easy to navigate and informative. Citizens did not need very high literacy levels to find and navigate around the websites.

At the time, online participation sounded like a viable method, but according to Kalemera *et al.* (2012:14) it was difficult to determine if the websites were actually making the election process more effective as opposed to physically participating in campaign rallies and phoning party offices. The reason was because the amount of offline election activities, exceeded the amount of online activities. Online participation was at the time still very new and that is why there were much more offline activities to inform citizens about issues regarding the election.

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Social media were another very important method used by parties. Facebook is the most viewed website in Uganda, making it a very handy medium to use in order to provide party members with information regarding the elections. Facebook was another method where participants could comment and begin discussion groups regarding a certain issue. Each party, for the citizen's convenience, also shared photos and videos of speeches and events. It was noted, though, that anonymity was a problem for many participants, because their Facebook profiles could immediately be seen and viewed by anyone else. This played a role in the effectiveness of public participation on social media websites. The following table from Kalemera *et al.* (2012:18) indicates all the different social media that were used by political parties in the 2011 election in Uganda.

Table 19: Ugandan elections 2011: Use of social media

Political Party	Facebook	Twitter	Flicker	Youtube Channel	Podcasting	Blogs
NRM	5869 likes	Active since November 2010 10 Tweets 307 followers Last tweet December 2010	Photo galleries and albums from rallies and events	Active since October 2010 1,565 Channel views 56,669 Upload views 18 Subscribers Last updated December 2010	X	X
FDC	4313 likes	226 Tweets 159 followers Weekly tweets	X	X	X	45 posts (Nov & Dec 2010) 16 posts Jan. 2011
DP	18031 likes	764 Tweets 666 followers Daily updates	X	X	X	3 posts (April & May 2011)
UPC	1,898 friends	X	X	X	X	X
PPP	X	X	X	X	X	X
UFA	1,626 members	X	X	X	X	X

Source: Kalemera *et al.* (2012:18)

At the end of the whole election process, it was concluded that the use of online participation tools in election processes is something that should be invested in for the future of Uganda. The effect of ICT in the 2011 elections is difficult to measure, but it became clear afterwards that the content made available online was limited and citizens were not actually that much better informed. This sounds bad, but it means there was actually interest shown towards

online participation. If the different parties used the online methods more effectively and frequently the citizens would have been better informed.

The benefits of ICT make sense and for the Ugandan government it does not seem impossible to improve ICT in the country, not just in the political arena, but in all areas. According to Kalemera *et al.* (2012:1) the number of mobile and Internet subscribers in Uganda is increasing. This means that Internet costs will start decreasing in Uganda, resulting in even more subscribers. There is a strong possibility that online participants in Uganda can increase in the future. Another reason why this is not too hard to believe is because of the attitude of the Ugandan public towards decision-making processes. As mentioned before, they want to get involved and they want to be informed. Therefore the public shall support online participation, as it improves their chances of getting more involved.

#### **8.4 Case study: European Union**

The European Union countries differ from India and Uganda in a couple of significant ways. Firstly, the European Union is characterised by its first-world status. All the countries that form part of the European Union has more financial resources, therefore they have the opportunity to experiment more with methods and ultimately they have a bigger variety of technology-based participation methods to choose from.

Secondly, the general citizen of the European Union is educated and has experience working with technological instruments. This is normally one of the main concerns regarding computerised methods. Because the education level of the average citizen in the EU is higher, handling computerised methods will be less of a problem and communication will be smoother and more effective.

Lastly, the citizens of the EU also have much better access to mobile phones, the Internet and other tools which they can use to be part of public participation processes. Per capita, there are thus much more people available to participate in decision-making processes.

E-participation is a new way to overcome the challenges democracy brings in modern society, such as the declining voter turnout, the reluctance of citizens to state their opinion and the low level of participation in public debates within political parties (Demo-net, 2006:23). It provides the “helping hand” in democratic processes to improve transparency and openness between the government and the citizens of the EU.

In terms of technology-based public participation, e-participation is one of the most active and promising domains in the EU (Koussouris *et al.*, 2011:8). As in India and Uganda, e-participation involves specifically the political arena. There has always been a need among the citizens to be connected with decision-makers and to be part of democratic procedures in the EU. According to Koussouris *et al.* (2011:8) this desire is increasing and assuring proof is the high voter turnout during the previous European elections.

This was not always the case. Prosser & Krimmer (2004:21) mentions that at the turn of the new millennium the use of technology in political processes was solely used for supportive and administrative purposes. It was not considered using these valuable tools to improve interaction between citizens and the government. Democratic progress could not be made.

Fortunately this changed in the years to follow, as the government realised the importance of public participation and the benefits it can provide for the EU as a whole, especially with the implementation of e-participation. The EU knew that by effectively informing the public about topics that interest and affect them, the better citizens would engage in political processes, which would consequently lead to a strengthened democracy (Coleman & Gotz, 2002:248).

As mentioned before, the financial situation of the EU puts them in a position to have a variety of participation methods or programs to implement. Over the last couple of years, the European Council has funded 20 different projects in order to implement and improve e-participation in Europe. Table 20 describes certain of these programs.

Table 20: e-participation projects initiated in the EU

Project	Description
 <p>Figure 29: eMPOWER logo Source: eMPOWER (2009)</p>	<p>The eMPOWER project “aims to motivate and strengthen the involvement of Non-Government Organisations and citizens in the decision-making process on environmental issues at a National and European level by providing methods and tools for supporting citizens’ participation and collection of signatures to promote relevant public initiatives and demands of civil society.” (eMPOWER, 2009).</p> <p>ICT tools are used in the project to support e-petitioning. Transparent, democratic and interactive communication processes are some of the goals this project seeks to fulfill.</p>

 <p>Figure 30: u@MARENOSTRUM logo Source: u@MARENOSTRUM (2009)</p>	<p>The u@MARENOSTRUM project “aims to involve citizens and local actors from the Mediterranean coastal zones in decision-making processes for the adoption and implementation of water and marine environmental protection policies and legislations in the Mediterranean region in accordance with the EU environmental legislation.” (u@MARENOSTRUM, 2009).</p> <p>ICT tools as well as Geographic Information Systems (GIS) are significant resources in the implementation of this project.</p>
 <p>Figure 31: eCOMMITTEE logo Source: OurClimate.eu (2007)</p>	<p>The eCommittee project “aims to find innovative ways for EU citizens to get more involved with the making of legislation at the European Parliament level.” (OurClimate.eu, 2007)</p> <p>This can happen through online discussions and representations. Climate change is the main issue this project wants to address.</p>

Source: (eMPOWER, 2009; u@MARENOSTRUM, 2009; OurClimate.eu, 2007)

This proves that there is a variety of programs/projects available in the EU, which can be implemented by the government or other organisations. As already said, this is due to financial resources and knowledge available in EU.

#### 8.4.1 Example of participatory approach in the European Union: The Netherlands – Creative methods

A significant benefit in the EU is that more attention can be paid to creative technology-based participatory methods. In the Netherlands, the public plays a key part in developing and place-making. Cilliers *et al.* (2012b:5) states that one of the goals in the Netherlands is to “enhance place-making and planning within public spaces”. Urban Planners in the country realised that if they want to develop public spaces, they must get the users of these spaces, e.g. the public, involved. A series of creative methods are used in the Netherlands to get citizens involved and let them come up with valuable opinions and ideas to assist in decision-making and space creation. Table 21 describes some of these methods.

Table 21: Creative technology-based methods used in the Netherlands

Methods	Description
<p data-bbox="347 297 545 327">“Meet my street”</p> 	<p data-bbox="780 297 1401 427">This method focuses on making local residents more aware of their surroundings. It is also interested in their values and the perceptions that they have.</p> <p data-bbox="780 450 1401 781">It involves handing local residents a film recorder and asking them to film what they see as relevant and necessary within the specific area or space. This way the community’s perspective, identity and needs can be derived. By using technology, information and data are captured. This method is especially welcomed by the youth, because they are technologically-orientated.</p>
<p data-bbox="320 801 572 831">“Extreme experience”</p> 	<p data-bbox="780 801 1401 1335">This method is not aimed at gaining any information, but solely on creating awareness. There is more than one type of these “experiences”. One such experience involves getting the public to see areas from another view or angle. It can happen by lifting locals high in to the air with the help of technological machines. From up there they can view an area as an “outsider” and it is possible that they will perceive different perspectives and start seeing an area differently. If different perspectives arise, better communication can be stimulated, enhancing social capital at the same time.</p>
<p data-bbox="320 1406 572 1435">“Creative techniques”</p> 	<p data-bbox="780 1406 1401 1588">This method correlates to the “meet my street” method in the sense that it was primarily created to capture the values of a space as perceived by local citizens and thus identifying what they consider as valuable in the space.</p> <p data-bbox="780 1610 1401 1839">It involves giving local citizens a camera and telling them to take photographs of the thing they feel is valuable and unique in a certain space. As in the case of the “meet my street” method, the results are analysed to determine what the majority of the participants value in an area.</p>

Source: Cilliers *et al.* (2012b:6-14)

It is clear that due to the fortunate position the EU finds itself in, in terms of finances and education, they have more technology-based methods to work with and the average citizen possesses the resources to utilise these methods and therefore is able to participate more effectively in public participation processes.

### 8.4.2 Pilot study: Denmark: The Digital Administration programme

During the year 2000, The Danish government launched the Digital Administration programme. It was a democracy project with the aim of increasing the number of participations in the 2001 government elections. This was done by creating an electronic forum among politicians and citizens, where there could be effective communication between the two.

The main reason for creating the programme was because of the extremely low voter turnout in the previous Danish government elections in 1997. "The object of the Democracy Project was to make visible the decisions made on a regional political level, and to involve the citizens in the process of democracy." (Coleman & Gotz, 2002:44). Before the programme was actually created, focus group meetings with citizens and politicians were arranged to get their input regarding their requirements for the programme. The conclusion was that the citizens wanted a dialogue between them and the politicians in the form of a forum where questions could be asked, opinions given and comments made by both politicians and the public. The target groups were citizens, politicians and first-time voters. The public were interested to get to know the politicians and they wanted to get involved at an early stage of the election where they can still have an influence on the election process.

The website where all the participating parties could interact with each other included the following (Coleman & Gotz, 2002:44):

- Chat rooms;
- A calendar with relevant election dates;
- Information sites, giving updated news on a daily basis regarding developments within the different parties;
- A site giving information on all the candidates;
- A search function.

A considerable amount of effort was put into the design of the website, hoping that it would look sympathetic and friendly, inviting citizens to browse the website, while still not being too overwhelming and perhaps irritating young people in the process.

The website was a success. It resulted in a good dialogue between citizens and politicians. The website recorded 23 000 visitors and 440 contributors to online debates. According to Coleman & Gotz (2002:44), the reason for this site being successful is partly to be found in the "extensive involvement of users, in particular the candidates for the county council who received comprehensive and repeated information about the project, and partly in the profiling potentials of participating and providing information."

## 8.5 Challenges of technology-based methods

According to Coleman & Gotz (2002:36) there were certain truths online participation had to face in 2002. Firstly, there were few examples of online participation around the world. Where examples could be found, they were of an experimental nature, which meant that online participation was still undeveloped. Lastly, all cases of online participation were challenged by too few citizens knowing about it, and governments failed to integrate these online methods with political processes or did not respond to them effectively (Coleman & Gotz, 2002:36).

Fortunately, eleven years later, it is clear that most of these problems have been resolved. There are many examples and case studies around the world where technology-based participation methods are implemented. Online participation is well known, especially considering the role social media, such as Facebook and Twitter, fulfil in the lives of citizens today. In addition, where there is online participation, governments are in most cases actively trying to respond to citizens' questions and comments.

In the above pilot study, the use of online participation methods proved to be successful and many citizens benefitted from using this method, but in many instances, this is not the case. There have been many cases in recent years where computerised methods did not have the desired impact that governments and Planners had hoped for.

As seen in Uganda and the EU, the attitude of citizens towards technology-based participation methods is very positive, so that is not a problem, but there are a few other reasons why technology-based public participation methods have not made such a significant impact as expected.

Firstly, as mentioned before, the poor financial situation of many citizens makes it very difficult for them to engage in online participation processes, because they do not own a computer/laptop, or they cannot afford Internet. This is a challenge for governments and Planners who aim to use computerised methods, because the Internet, as well as a device to access it with, are both necessities. Access to computerised methods of participation is thus limited in many countries.

Furthermore, the lack of technological education in many parts of the world poses a challenge. This is especially true of older generations, as they did not have exposure to technology when growing up. If an individual does not know how to manoeuvre around on the Internet, or how a certain computer program works, it is very difficult to get actively involved in computerised participation processes.

Citizens can very easily get bored by something and simply move on. In many cases, it is difficult for Planners or governments to keep citizens interested in online participation, especially in political processes where citizens can feel inferior or unimportant. It is important firstly to get citizens involved in an online participation process, and then more important to keep them interested. This will improve the efficiency of public participation processes.

Citizens engaging in online participation tend to comment and enquire about many different topics. Most of the time this results in massive quantities of comments, followed by unnecessary and non-relevant discussions. This also decreases the impact of online participation, ultimately becoming a waste of time for many participants. For example, an online forum can be initiated by a political party to communicate with citizens regarding a new party logo. One citizen can post an idea, which is the type of input the party wants, but then another citizen criticises the idea. This is

followed by numerous citizens agreeing and not agreeing, resulting in an online fight between the citizens. At the end of the day there were no valuable inputs given and the political party, as well as the citizens, did not benefit from the participation process.

Finally, there has been a tendency from governments or other organisations, to launch an online public participation process about topics that do not have a direct impact on the specific community they are addressing. When this occurs, local citizens tend to lose interest and not participate in the process, even if it has an indirect impact on them. The effectiveness of the online process will not be as efficient as it should be and accurate results will not be accurate.

## 8.6 Conclusion

The tables below provide a summary of the case studies investigated in this chapter. Most of the case studies were found to be successful with regard to the implementation of technological innovation in their participatory planning approaches, recognising the unique challenges, methods and approaches to sustainable development that apply within each of the case study areas. One case study was not successful, because of the lack of available users with access to ICT tools.

Table 22: Summary of international case studies regarding technological innovations in participatory approaches

Case study	Views	Challenges	Methods	Sustainable development	Successful
India	<ul style="list-style-type: none"> <li>• Uses mostly in political sector.</li> <li>• Uses new methods to gather information from citizens, improve accessibility, and reach as many citizens as possible.</li> <li>• Citizens want to be involved.</li> </ul>	<ul style="list-style-type: none"> <li>• Size and high density of population.</li> <li>• Lack of resources in communities.</li> <li>• Illiteracy.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited to those with technological knowledge and Internet/cell phone.</li> <li>• Difficult to implement methods, due to high density communities.</li> </ul>	<ul style="list-style-type: none"> <li>• New methods not only used in politics, but also in environmental processes.</li> <li>• High density population makes it a priority.</li> <li>• Open spaces decreasing, making sustainable development more crucial.</li> </ul>	✓
Uganda	<ul style="list-style-type: none"> <li>• Legislation to enhance public participation (National Information and Communication Technology policy)</li> <li>• Sees newer methods as a gateway to improved government transparency and better service provision.</li> <li>• Citizens are</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of resources.</li> <li>• Limited access to Internet and computers</li> <li>• Illiteracy.</li> </ul>	<ul style="list-style-type: none"> <li>• Variety of technology-based tools.</li> <li>• Not very effective though, due to low percentage of users able to participate.</li> <li>• Use same methods in different sectors of government.</li> </ul>	<ul style="list-style-type: none"> <li>• Not much impact on sustainable development yet. Methods used primarily in political processes and not many citizens can participate.</li> </ul>	X

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	extremely willing to participate.				
<b>Europe an Union</b>	<ul style="list-style-type: none"> <li>E-participation one of the most active and promising domains in EU.</li> <li>Welcoming attitude towards public participation.</li> <li>Viewed as a “helping hand” in democratic processes to improve transparency between government and EU citizens.</li> </ul>	<ul style="list-style-type: none"> <li>Legislation leads to administrative work for authorities, therefore many different types of methods are not implemented.</li> <li>For citizens to get access to certain information they must fill in paperwork, discouraging them from engaging in participatory processes</li> </ul>	<ul style="list-style-type: none"> <li>More financial resources, therefore more methods to work with.</li> <li>Easier to implement computerised methods, due to knowledge and skills of citizens.</li> <li>Creative methods</li> </ul>	<ul style="list-style-type: none"> <li>High level of development leads to sustainable initiatives being implemented.</li> <li>Public participation in all sectors: Social-, economic-, environmental issues.</li> </ul>	✓

Source: Own creation (2013)

The following table illustrates a SWOT analysis of international technology-based participatory planning approaches.

**Table 23: SWOT analysis of international technology-based participatory approaches**

<b>International approach</b>			
<b>Technology-based public participation</b>			
<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<b>Third-world</b>			
<ul style="list-style-type: none"> <li>Due to issues (poverty and illiteracy) in these countries, governments are motivated to improve their relationship with the public.</li> <li>Governments realise that more community members can be reached using technology-based participation methods.</li> <li>Already started to implement a variety of ICT tools.</li> <li>Attitude of citizens are mostly very positive towards public participation.</li> <li>In many countries policies have been created to support e-participation.</li> </ul>	<ul style="list-style-type: none"> <li>Third-world problems: poverty and illiteracy, which limits the potential of technology-based methods in participatory processes (limited access).</li> <li>High % of citizens in rural areas, characterised as information-poor with bad communication channels.</li> <li>In some countries, the size of the population results in very high-density areas, making it challenging to provide enough technological equipment to implement sufficient e-participation.</li> </ul>	<ul style="list-style-type: none"> <li>Potential for development, therefore increased motivation to implement technology in participation processes.</li> <li>Efficient planning is necessary, giving e-participation an opportunity to prove itself as a helpful tool to improve planning processes.</li> <li>Technological innovations make citizens very curious, because they are not familiar with it.</li> <li>If gender inequality in many countries does not apply to e-participation, it can inspire women to participate more effectively.</li> </ul>	<ul style="list-style-type: none"> <li>If methods do not become more bottom-up communities may become unhappy.</li> <li>If gender inequality in many countries also applies to e-participation, it may upset women leading to rebellion.</li> <li>Citizens tend to complain about all their problems through the e-participation system, instead of using it to participate effectively in the actual decision-making processes.</li> </ul>
<b>First-world</b>			
<ul style="list-style-type: none"> <li>First-world characteristics: more financial resources and better knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>There are many users of e-participation systems, making it difficult to</li> </ul>	<ul style="list-style-type: none"> <li>E-participation can overcome challenges such as declining voter turnout</li> </ul>	<ul style="list-style-type: none"> <li>In most cases thus far, e-participation did not have the desired impact.</li> </ul>

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<ul style="list-style-type: none"> <li>• Citizens are familiar with technology, therefore they will understand e-participation better.</li> <li>• Citizens have improved access to Internet, cell phones and other ICT tools.</li> <li>• Large variety of technology-based methods and projects available.</li> <li>• Governments realise more and more the benefits of e-participation.</li> <li>• More effort is put in developing creative technology-based participatory methods.</li> </ul>	<p>respond to every inquiry or comment.</p> <ul style="list-style-type: none"> <li>• There are still citizens who cannot afford Internet or a computer.</li> <li>• Older generations are not familiar with technology. Younger generations have an advantage.</li> <li>• Citizens tend to deviate from the original discussion, resulting in many “irrelevant” comments.</li> <li>• Governments tend to launch e-participation processes about topics that do not have a direct impact on the specific community they are addressing. Citizens then tend to lose interest in the process.</li> </ul>	<p>and the reluctance of citizens to state their opinion.</p> <ul style="list-style-type: none"> <li>• Potential for development, therefore increased motivation to implement technology in participation processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Citizens can easily get bored when using online participation and lose interest.</li> </ul>
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**Source: Own creation (2013)**

After evaluating different approaches towards technology-based public participation, it is clear that computerised methods are implemented all around the world to assist in the participatory planning approach. It is seen as a valuable tool in many different types of processes, especially political processes. For this study it is not important to see what type of process utilises technology the most in its public participation processes, but only that it is, in fact, being used quite extensively. This means that it can be implemented in almost any field where the public plays a role and decision-making processes are required.

Its level of implementation and success varies among different countries, due to the challenges mentioned above. If organisations can overcome these challenges, it will be possible for technology-based public participation to reach even further heights. Chapter 12 will provide recommendations on how to improve technology-based participation as part of the urban planning process.

## **Chapter 9: South Africa: Views regarding public participation**



Figure 32: Location of South Africa

Source: Own creation (2013)

In the previous two chapters the international perspective regarding public participation was investigated in terms of public participation as a tool to improve development and decision-making processes by using “traditional methods”, as well as the implementation of technology in public participation processes with the aim of improving participation as a whole. The world consists of many different countries, each with its own unique background and economy resulting in opportunities and constraints. That is partly why public participation is executed differently in different parts of the world. Third-world countries approach public participation slightly different than first-world countries. The financial capability of a country plays a role in the methods used to execute public participation as well as in the variety of methods used. For this study it is very important to investigate how South Africa executes public participation.

### **9.1 Introduction**

South Africa has a history that many see as unfortunate. The Apartheid era from 1948 – 1994 (Mariotti, 2009:2) is part of the South African history. It caused problems for South Africa back then and it led to numerous challenges that the country struggles with today. One of these challenges is participation. In the apartheid era, only white people had the right to participate in decisions, especially legislative decisions. Other races had no right to participate in projects that affected or interested them.

This in turn led to a gap in participation, as other races also had opinions to give but could not. Valuable information was lost in this era, because of this segregation. South Africa’s participation process could not evolve as fast as it should have. That is why some experts believe that the country is behind other countries. This may be true, as South Africa is classified as a third-world country, but definite attempts have been made to rectify the problems that Apartheid has caused.

A public participation conference took place from the 29<sup>th</sup> of February until the 2<sup>nd</sup> of March in 2012. The conference aimed to “share key insights and knowledge on improving citizens’ meaningful participation in

governance processes. The conference also sought to build a body of knowledge on public participation and civic education.” (Gauteng provincial legislature, 2011). The specific conference objectives were to:

- ✓ Strengthen public participation strategies.
- ✓ Share knowledge and skills that are required when it comes to meaningful public participation.
- ✓ Bring theory and practice closer to each other – close the existing gap between the two.
- ✓ Invest in public participation initiatives in governance processes.

This conference is an example of the intent of the South African government to rectify the problems that Apartheid may have caused in terms of participation of the public. Since 1994, South Africa is a democratic country and the participation of the public must be enhanced (ACTSA, 2012).

This section, therefore, aims to give clarity regarding the public participation situation in South Africa. Different disciplines in South Africa will be put under the magnifying glass to investigate the different views, methods and problems experienced within South Africa regarding public participation.

## **9.2 Comparing participatory processes**

South Africa has a variety of professions and most of these professions, to a certain extent, make use of public participation. In each profession, the degree of participation differs, but nonetheless it still plays a cardinal role in decision-making processes. By investigating and comparing different professions (or disciplines) such as Urban and Regional Planning, the Health Science Department and the Geography/Environmental Science Department with each other, you get an idea of the current state of public participation in South Africa. The following will be analysed in each discipline:

- 1) Views regarding public participation
- 2) How public participation is executed in the specific profession (methods)
- 3) Public participation problems surfacing within the discipline

Structured interviews were conducted to obtain the answers and results of the analysis. Experts, identified in each discipline and profession, were interviewed. Questionnaires were also sent out to other people working in these disciplines. The information gained from the interviews and questionnaires were analysed and interpreted.

### **9.2.1 South Africa: Urban and Regional planning approach**

Planning can be broken down into two main segments: Land use management and Forward Planning. Each segment can be discussed individually, because the degree of public participation differs in each segment. South Africa (2012:7) defines Land use management as “regulating and managing land use and conferring land use rights through the use of schemes and land development procedures.”

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In Urban Planning, land use management involves rezoning, township establishments, subdivisions and consolidations. A person needs to apply for any of the above. As the definition states, there are many schemes and legislation involved when it comes to land use management. There are also development procedures and processes involved. When there is a land use management application, the following processes must occur (in no specific order): Newspaper advertisements and notice boards should be set up, the proper documentation (i.e. power of attorney, title deeds etc.) and a motivational memorandum should be in order. Another process includes the appeal process, where the public can object to the application.

Forward Planning is regulated by the Municipal Structures Act [No. 117 of 1998] (South Africa, 1998). It functions under the authority of the IDP and SDF of each district. The IDP acknowledges the public participation process and therefore public participation is more involved when it comes to this segment of Urban and Regional Planning.

### 9.2.1.1 View regarding public participation

Public participation in Urban and Regional Planning is extremely important, because the work they do have an impact on the community. The public forms an integral part of Urban and Regional Planning, because every type of application process includes a degree of public participation.

It is important to get the public involved, because they know the areas they live in much better than a professional planner that comes from another part of the country. Their inputs are therefore important and much appreciated.

Public participation can be very difficult to handle. If you want to develop a piece of land, for whatever reason, and the majority of the community objects to the application, it puts the Urban Planner in an unpleasant predicament: On the one hand, development is needed, because it is beneficial to expand a town and become economically more competitive. On the other hand, one does not want to upset the community, because it will lead to potential petitions, strikes and even violence. In these situations, it is a challenge, to Urban and Regional Planners, to make compromises and keep everybody satisfied.

Public participation is thus very important and necessary in Planning, but even amongst Planners themselves, there are doubts about the efficiency of the public participation processes and to what extent it actually gets the public involved. One Planner said the following regarding his view towards public participation: "The wheel doesn't have to be redesigned, but there are punctures that need to be patched up." The reasons will be discussed in section 0.

### 9.2.1.2 Methods

Some of the public participation methods which are used in Urban and Regional Planning have already been mentioned: The Town-Planning and Townships Ordinance (15 of 1986) mentions advertising applications in newspapers {Article 56(b)(i)} and placing informative notice boards at the site of the applicant {Article 56(b)(ii)}.

The public can respond to these advertisements by objecting to an application. Article 56(2)(a) of the Ordinance states that the local authority may give further notice of an application by "posting a notice in such a form as may be prescribed in a conspicuous place on its notice board...".

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According to Article 59(1) of the Ordinance, “An applicant or objector who is aggrieved by a decision of an authorised local authority...may within a period of 28 days from the date of the publication of the notice ...appeal by lodging a notice of appeal...” This is also where the public can let their concerns be heard.

Lastly, according to the Town-Planning and Townships Ordinance (15 of 1986), if someone in the public objects a hearing will have to be scheduled according to Article 59(5)(a) of the Ordinance. A Board shall determine when such a hearing will take place. Article 59(6)(b) states that the public can state their case and provide his/her reasons why an application should not go through.

### 9.2.1.3 Problems

As stated earlier there are many processes involved in land use management. These processes are all being “controlled” by the Town-Planning and Townships Ordinance (15 of 1986). Ordinances differ in the various provinces. For the purpose of this study, Ordinance 15 of 1986 is assessed.

The problem is not necessarily that the legislation controls the land use management processes, but rather the legislation does not accommodate public participation as well as it should. The ordinance is therefore inadequate in this regard. For example, a notice board can only be put up at the terrain of the application, and for two consecutive weeks an advertisement should be put in the local and provincial newspaper. According to the relevant legislation these are the only potential opportunities where public participation can occur during a land use management process. “An objector may appeal within a period of 28 days from the date of the publication of the notice” – Article 59(1) of the Town-Planning and Townships Ordinance (15 of 1986). The question arises: “What are the odds that most residents will be see these advertisements within 28 days?” The chances are very small. Thus most of the surrounding citizens will not even be aware of the application. Local authorities argue that it is the community’s responsibility to submit their objections in time. If the citizens did not read the newspaper and they did not pay attention to the notice board it is their problem and they should deal with it.

Another issue that grieves planners is that the Ordinance does not acknowledge the adjacent house owners of the specific terrain, and therefore they (the people that will be most affected by a new development or rezoned erf) are not even directly approached. Other ordinances may require a list of surrounding property owners with an application in order to serve notices to them (for example the Free state Township ordinance (ordinance 9 of 1969).

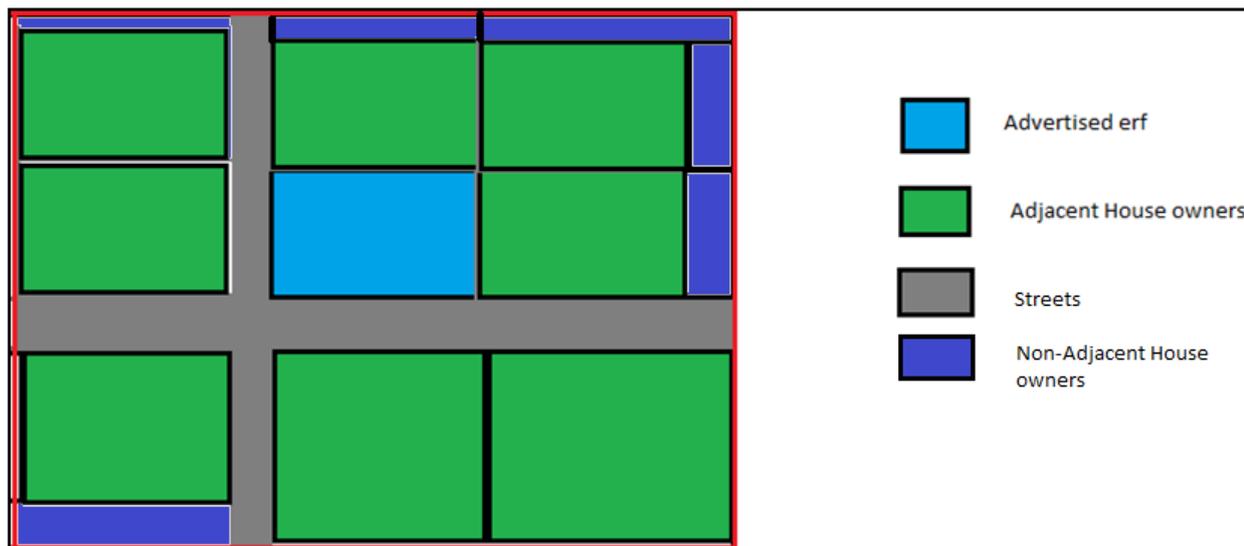


Figure 33: Adjacent land house owners

Source: Own creation (2012)

The level of vocabulary used in the newspaper articles and on the notice boards are extremely high. Excellent vocabulary with difficult terminology is beneficial when working with professionals in the corporate world, but for public participation it is not necessary. The average citizen (especially in South Africa, with the high levels of poverty and the low levels of good education) cannot always understand what is being said on the notice boards and in the advertisements. The ordinance assumes that the public has the necessary knowledge about land use management processes, but in reality it is not true. You can actually make the daring verdict that the law misleads the public by not telling them everything.

A problem with the South African legislation is that there is a variety of different legislation. Johannesburg alone has 14 different town planning schemes (Rees, 2001). Steyn (2012:20) states that each of these town planning schemes have their own regulations and provisions regarding the requirements for different types of applications. Public participation cannot gain more support from the law if there are so many inconsistencies to deal with..

## 9.2.2 South Africa: Health Sciences approach

### 9.2.2.1 View regarding public participation

The following was said by a researcher in the Health Science Department at the North-West University: "We can do this and that, but what is it that YOU want?" It is a summary of exactly how they approach public participation in the Health Science department. They work using a grass-roots approach. It means the same as using a Bottom-Up approach. They start at the roots (Bottom) of a situation and work their way up from there.

Here they focus on working with the community, not for them. It is viewed as a more sustainable approach – human driven, making sure that the local community understands exactly what it is they are doing at a specific terrain when they are working on a project. The objective is not only to improve the health of the people, as other parties might

think, but rather to enhance and equip communities with skills and education as well. This way a community can be uplifted as a whole and can function on itself within a few years. This grass-roots approach is a long-term approach. Changes cannot be seen in a year or two.

Health sciences are interested in what the local community really wants. The only way to do this is actually to reach them at their level and connect with them. It is not necessarily money they want, but perhaps food, health or identity. The Health science department aims to get the community involved by asking their help for innovative ideas. The department merely helps to initiate these ideas and to make them a reality. Working in this way in creates a sense of identity and ownership among community members as well as pride and passion. From there it will be possible to get the community actively involved in helping with issues that really affect them. If one does not satisfy the citizens “at the bottom of the food chain”, it will most likely have an impact on secondary processes. If a builder builds a house and does not pay attention to laying the bricks correctly at the base of the structure, the whole house will deteriorate eventually and fall apart. The Health Science Department shares the same methodology.

In section 9.2.1 much emphasis was put on legislation. In this profession they acknowledge the importance of legislation. It is necessary to act according to the law, because it maintains order and structure. But there should be a balance, as with everything in life. The legislation should thus be present, but it should be on such a level that the community also understands what it says. The vocabulary of legislation, for instance, should not be too difficult for the community to understand. It should be very clear and not misleading, as is the case with so many legal documents.

### 9.2.2.2 Methods

The public participation methods used in the Health Science department all approach matters from a bottom-up perspective.

Before a project or initiative is started, a meeting is scheduled for all the relevant stakeholders who share the vision of the project. It is important to mention that the stakeholders do not only involve the local community, but according to Sequeira & Warner (2007:10) stakeholders include all the “persons or groups who are directly or indirectly affected by a project, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively. Stakeholders may include locally affected communities or individuals and their formal and informal representatives, national or local government authorities, politicians, religious leaders, civil society organisations and groups with special interests, the academic community or other businesses.” – Anybody who will be affected or interested by a specific project. The idea of this meeting is to discuss, among all the different stakeholders, what the current situation is. Each stakeholder can state his/her case and say what problems or potential he/she sees by tackling this project. The aim of the meeting is to reach consensus between all the stakeholders. This will avoid unhappiness and objections by stakeholders in the future.

Another method is by doing an ABCD needs assessment. “A growing community-organising movement, asset-based community development (ABCD), posits that the glass is half full rather than half empty. Rather than focussing on community deficits like crime, vandalism, unemployment, or drugs, ABCD aims to identify and mobilise the positive attributes inherent in local government, businesses, nonprofits, voluntary associations, and individuals.” (Walker,

2006). The ABCD Institute spreads its findings on capacity-building community development in two ways: Firstly through extensive and substantial interactions with community builders, and secondly by producing practical resources and tools for community builders to identify, nurture, and mobilise neighbourhood assets (Assessnow, 2009). They use this process to get the public even further involved. One of the aims is to uplift the spirit of the community and to make them optimistic towards a specific project, as well as to accept the project team and the work they are doing. Optimism will enhance the public participation process.

### 9.2.2.3 Problems

One challenge that this profession has to deal with, especially in South Africa, is the fact that there are many different cultures, policies and backgrounds they have to take into consideration. This is thus not really a problem, but more like a challenge (as already stated). If it is approached in the correct manner there should not be any problems.

Communication is still a small problem. It has been made clear that the Health Science department focuses a lot on talking and interacting with the local community itself. This means that communication will take place. Although they realise the importance of efficient communication, it still stays difficult to communicate effectively with all the stakeholders, especially if there are different cultures and languages involved.

Lastly, a phenomenon that is still executed among many other Health Scientists is the Top-Down approach (where the community is not directly involved in decision-making processes). It has been proven as an unsustainable approach and it is not pleasing to the community to experience. This is therefore still a problem in this profession that needs to be rectified by perhaps launching awareness campaigns.

### 9.2.3 South Africa: Geography & Environmental Management approach

#### 9.2.3.1 View regarding public participation

The Geography and Environmental Management Departments are very careful to use the term “public participation” (DEAT, 2002:6). They say it can be misleading in a number of ways: Firstly when the term “public” is used it results in people thinking that only the public is involved, which is not true. Every citizen is important, but the term “may be misinterpreted as excluding the private sector and non-decision making authorities.” (DEAT, 2002:6). These groups may perhaps feel excluded from the public participation process. Secondly, the “public” may be seen as a group of people who share exactly the same opinions, interests and values. The truth in fact is that there is a vast diversity of interests and values between members of the same community. Therefore, this department rather refers to public participation as “Stakeholder engagement.” (DEAT, 2002:6).

Environmental Management defines stakeholders as “a sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the leading authority and other authorities) and all interested and affected parties.” (DEAT, 2002:6).

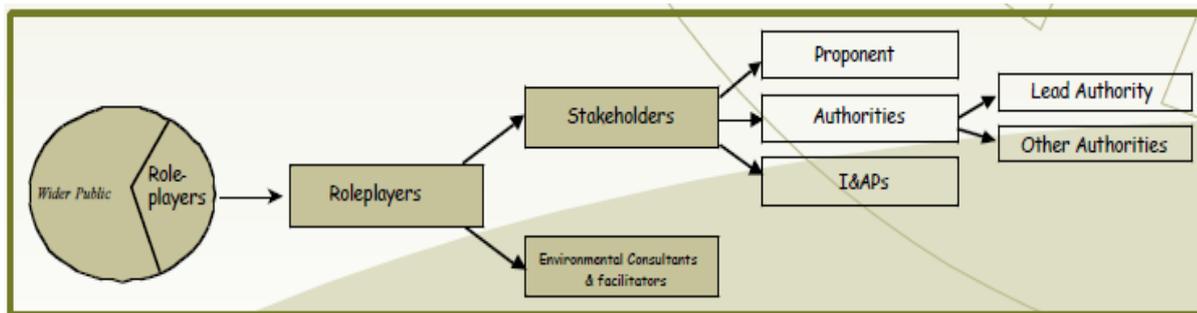


Figure 34: Stakeholder definition – Geography & Environmental approach

Source: DEAT (2002: 6)

### 9.2.3.2 Methods

The Geography and Environmental management department uses a significant variety of methods to get the local communities actively involved in decision-making processes. Some of the methods they use include (DEAT, 2002:15):

1. Legal Notices - Notices which inform stakeholders and the rest of the public of a certain project or proposal. These notices are required by law (South Africa, 2010a:59).
2. Advertisements - Advertisements in newspapers or magazines to inform stakeholders and the rest of the public of a certain project or proposal. It is important that these advertisements should not be hidden in sections in the newspaper where they are generally overlooked.
3. Websites - Websites are created that conveys project information as well as announcements regarding the project or proposal. Readers can provide their opinions from their homes via the Internet.
4. Field trips - Tours to the specific site where stakeholders can see for themselves what is going on at the site and what the proposed plans are going to look like.
5. Public meetings – The proponent meets with the stakeholders in a public place. Anybody can join these meetings. At these meetings the proponent gives presentations so state the situation, which are then followed by a question and answer session.
6. Central information contact – Designated contact persons are chosen to be communicators for stakeholders and the public.
7. Surveys – Surveys for collecting information from a percentage of the population. Surveys can be done telephonically or by means of questionnaires.

### 9.2.3.3 Problems

A few problems or challenges have been identified in this discipline which need to be revised in order to make the public participation process, or “stakeholder engagement process”, more significant and sustainable. DEAT (2002:16) states that public participation is not a requirement in all the countries on earth. Some countries have no legislation to support the public in this regard. In South Africa, there is definite legislation that considers and supports public

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participation practices, but many this legislation only exists on paper and has not yet been translated into practice. Overall, in the Geography and Environmental management disciplines this is a challenge.

A further issue, according to DEAT (2002:16) is that the public participation process is only undertaken during the environmental assessment stage. The problem with this is that many planning and strategic decisions have already been made at this stage, which means that the public cannot give any insights or raise concerns about the specific project. This obviously leads to an unhappy local community.

It is a fact that in South Africa, with the diversity of cultures, complexities in social structures exist which most likely come from hierarchies in cultures. This results in many stakeholders lower down in this hierarchy not being able to share in the participation process. Valued information can therefore not be gained. Only the rich and important citizens can let their voices be heard.

Low levels of literacy, low language education and financial constraints are all challenges that are faced. These challenges lead to capacity constraints – it is difficult to get a large number of citizens to engage effectively and equitably in the participation process (DEAT, 2002:17).

Considering the above disciplines,

Table 24 below summarises the current state of public participation in South Africa.

### 9.3 Conclusion

The tables below provide a summary of the case studies investigated in this chapter.

**Table 24: SWOT analysis of South African participatory approaches**

<b>South African approach</b>			
<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• South Africa is behind because of our history (apartheid), but therefore the country is motivated to improve.</li> <li>• Variety of cultures, there are therefore more opinions and ideas which leads to better proposals.</li> <li>• Support from legislation and policies.</li> <li>• Positive attitude towards public participation.</li> <li>• Variety of “traditional” participatory methods available (although not implemented in Urban Planning, but in other disciplines).</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to accommodate all cultures and ethnic groups.</li> <li>• Apartheid era (1948 - 1994) still has a negative impact on public participation - could not evolve as fast as it should have.</li> <li>• Illiteracy of citizens – difficult to understand participation process.</li> <li>• Too many variations of legislation for different parts of the country. Can cause confusion among Planners.</li> <li>• Communication between authorities and citizens.</li> </ul>	<ul style="list-style-type: none"> <li>• Definite opportunities for improvement.</li> <li>• High % of citizens living in poverty and would therefore be very willing to cooperate in participatory processes.</li> <li>• More bottom-up approach can be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• If there is no consistency when different cultures are approached it may lead to racial disputes.</li> <li>• Developing country, therefore not as many resources.</li> <li>• In some fields public participation does not lead to sustainable results.</li> <li>• Unrealistic expectations from citizens.</li> <li>• Gap between theory and practice. Struggling to implement ideas.</li> </ul>

Source: Own creation (2013)

By comparing the different disciplines, it is possible to get a broad perspective of how public participation is viewed and executed in South Africa. Every discipline investigated in this chapter deals with public participation in a different manner.

It can be concluded that in South Africa there are positive and negative aspects regarding public participation. South Africa may still have some way to go to be able to compete with international approaches, but the basic point of departure for such participatory processes are in place, captured in legislation, and gaining importance in the local environment. However, for South Africa to improve the current approach to public participation there is more needed than legislation. The country depends mainly on legislation to guide participatory processes, which is not necessarily incorrect – it is extremely important to follow relevant legislation and policies - but the current legislation and regulations, with respect to public participation, cannot accommodate participatory processes as well as it should.

## **Chapter 10: South Africa: Technology initiatives to enhance public participation**

The previous chapter investigated the South African view towards public participation. By comparing different disciplines (each with a slightly different approach to public participation) with each other, an accurate conclusion could be made regarding the general attitude towards public participation. South Africa sees the value of participation in decision-making processes, but there is much room for improvement. It is generally believed that the addition of technology in participation processes can improve public participation (Yao, 2006:5), therefore this chapter will focus on the situation regarding technology initiatives in participation processes in South Africa.

### **10.1 Introduction**

Around the world the importance of technology-based participation has been highlighted. South Africa is no exception, realising the importance of e-participation in improving service delivery and overall effectiveness in the country. As a result of this, the investments South Africa is making in Information and Communication Technologies (ICT) is growing at a steady rate (Mutula & Mostert, 2010:38). As mentioned in section 4.4, there are various advantages in using computerised methods in public participation processes. It has potential, but in order for a country or organisation to benefit from using ICT's, there must be certain things in place such as technological infrastructure, accessibility to this infrastructure and experience/education in ICT's. South Africa's adequacy, as a third-world country, is questioned by many in terms of its ability to effectively implement and execute technology in its public participation processes. But according to the Government of Canada (2013), South Africa has the most advanced economy in Africa and therefore it should not be underestimated. South Africa faces many challenges, but as the study will show, it is possible for the country to compete with other countries in this context.

### **10.2 Technology infrastructure in South Africa**

As already mentioned, South Africa is a third-world country, characterised by various economic constrains. Government prioritisation lies within the provision of basic services and houses to its citizens, and thus not so much on investing in new technology infrastructure. Cooper *et al.* (2004:2) defines technology infrastructure as "the name given to the equipment, the control and operating subsystems, the network connections and cabling of a total technology system." Technology infrastructure is therefore technological equipment used to improve technology systems and structures in a country. South Africa, with the most advanced economy in Africa, have implemented quite a wide variety of technological infrastructure over the past couple of years, setting the scene for implementation of efficient e-participation initiatives.

### 10.2.1 Telecommunication

Telecommunication services consist of a wide range of components including cell phones, computers, the Internet and radio, as illustrated in Figure 35. Telecommunication services serve a multi-purpose, meaning that it is “able to provide different user groups within a community, with a range of services relating to different domains (from education/training to business, from health to local governance), and it does so by offering several technologies.” (Islam & Hasan, 2009:539). This can prove to be extremely useful in a country such as South Africa, which have numerous different cultures and many citizens in need of education/training.



**Figure 35: Types of telecommunications**

**Source: iStock (2013)**

In South Africa, Telkom is the main service provider of communication services. It operates with both landlines as well as mobile communication services. Telkom is also the provider of broadband services (ADSL and WiMAX) and covers about 90% of the country (Mutula & Mostert, 2010:41). Although the prices of ADSL and Internet prices in general have come down, it is still too expensive for many citizens, making it unreachable for them. However, according to Mutala & Mostert (2010:41) South Africa is the leader in ICT developments in Africa and will therefore not be hampered by these unreachable Internet prices. In the late 1990's it was believed that South Africa had the most developed telecommunications network in Africa (Kling, 1999). Today this is believable, because the country has digital networks which include fixed-line, satellite and wireless communications. With telecommunications available in South Africa, it provides many opportunities for governments and Planners to utilise it to improve public participation. On this matter it is also relevant to mention that the radio is seen as the most efficient tool in telecommunications, especially in developing countries, such as South Africa (Islam & Hasan, 2009:541). Citizens who cannot read or write can still hear, making it a useful option to utilise in South Africa, especially if it is taken into consideration that there are many different radio stations in the country.

Cell phones, and the technology associated with cell phones, have evolved tremendously over the past couple of years. South Africa has experienced growth in the mobile phone industry, because it became more affordable. According to Mutala & Mostert (2010:41) it shows promise, because of its “ubiquity and high adoption rate among the country's citizens.” Hutton (2011) states that more Africans have access to mobile phones than to clean drinking water. With four mobile phone operators in the country, 89% of South-African citizens have mobile phones (Table 26). Mobile phones are presently being used for a number of reasons. In the past, it was only used for its phone and SMS services, but with the creation of smart phones, the services a mobile phone can offer increased dramatically. 11% of South Africans use their mobile phones to go on the Internet, using sites such as Facebook and Twitter frequently (Hutton, 2011). It is already visible when watching social media sites such as Facebook and Twitter that

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citizens are participating in online debates and giving their opinions regarding matters that affect them. Even in national matters, South African citizens can use their mobile phones to comment on certain subjects and sign petitions, as seen in the rebellion of citizens against the E-Toll system in Gauteng (TollfreeGP, 2011). With mobile phones providing Internet access and SMS services, it makes the use of mobile technology something to invest in more in terms of e-participation.

The following tables show relevant statistics regarding the utilisation of telecommunication tools in South-Africa:

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**Table 25: Percentage of South-Africa citizens with/without radio access**

	With	Without	Total
Eastern Cape	1031171	656214	1687385
Free State	629195	194120	823315
Gauteng	2729828	1179193	3909021
KwaZulu-Natal	1738016	801413	2539429
Limpopo	880012	538090	1418102
Mpumalanga	741358	334130	1075488
North-West	684709	377305	1062014
Northern Cape	185367	116038	301405
Western Cape	1130240	503761	1634001
	9749896	4700264	14450160
	67.47%	32.53%	100.00%

Source: StatsSA (2013)

**Table 26: Percentage of South-Africa citizens with/without cell phones**

	With	Without	Total
Eastern Cape	1381206	306179	1687385
Free State	723317	99999	823316
Gauteng	3667844	241178	3909022
KwaZulu-Natal	2225613	313816	2539429
Limpopo	1254808	163294	1418102
Mpumalanga	979942	95546	1075488
North-West	921734	140281	1062015
Northern Cape	244328	57077	301405
Western Cape	1452082	181918	1634000
	12850874	1599288	14450162

Source: StatsSA (2013)

### 10.2.2 Multi-purpose community telecentres (MCT's)

MCT's provide a community with a wide range of opportunities for education, health, weather, business etc. It provides telecommunications to a community. Gomez & Hunt (1999:17) defines MCT's as a "physical space that provides public access to ICT's for education, personal, social and economic development." It is thus a public place where citizens can gather to access computers, the Internet and other technologies to improve their lifestyle in terms of education – acquiring information, improving their technological skills and communicating with others (Figure 36). It is mostly found within rural areas where it can have a significant effect on the local communities, as rural areas are mostly characterised as information-poor (Islam & Hasan, 2009:537).

88.93%    11.07%    100.00%

**Table 27: Percentage of South-Africa citizens with/without computer access**

	With	Without	Total
Eastern Cape	200664	1486721	1687385
Free State	147265	676051	823316
Gauteng	1214059	2694963	3909022
KwaZulu-Natal	415788	2123641	2539429
Limpopo	175153	1242949	1418102
Mpumalanga	174946	900542	1075488
North-West	153315	908699	1062014
Northern Cape	49826	251580	301406
Western Cape	561528	1072472	1634000
	3092544	11357618	14450162
	21.40%	78.60%	100.00%

Source: StatsSA (2013)

**Table 28: Percentage of South-Africa citizens with Internet access between 2000 and 2008**

Year	Users	Population	% users
2000	2,400,000	43,690,000	5.50%
2001	2,750,000	44,409,700	6.20%
2002	3,100,000	45,129,400	6.80%
2003	3,283,000	45,919,200	7.10%
2004	3,523,000	47,556,900	7.40%
2005	3,600,000	48,861,805	7.40%
2008	4,590,000	43,786,115	10.50%

Source: Internet world stats (2012)



Figure 36: Education through telecentres in rural areas

Source: ICT update (2012)

According to Mutala & Mostert (2010:42-43) MCT's provide several opportunities for governments and citizens as well as certain challenges. Opportunities include a chance to reduce social isolation ("poor" being separated from the "rich"), providing a channel of communication between rural communities and governing bodies and enhancing education. The efficiency of MCT's are challenged by poor literacy and communication skills, financial constraints and a lack of technological skills.

In South Africa, although a third-world country, there are numerous MCT's deployed in the country. It is estimated that there are approximately three hundred and fifty five MCT's in South Africa that provide ICT services specifically in rural areas (Farelo & Morris, 2007:7). With the current technology infrastructure in the country, such as Internet, fixed-line networks and mobile networks it is evident that these MCT's are serving a purpose in South Africa and over time are fulfilling the purpose of educating rural citizens as well as providing them with the opportunity to be in contact with the government. The MCT's are thus used as catalysts for communication between different authorities and community members.

### **10.3 Initiatives to improve the realisation of e-participation among citizens**

South Africa has the resources and basis to implement technology-based public participation tools in decision-making and urban development processes.

In a study done by PCRD, Mbumba & eKhaya ICT (2011:24-25) a series of models were investigated that could allow South African citizens to have improved access to e-participation, giving them the opportunity to make comments and give their opinion regarding certain matters (mostly of a political nature) that interest and affect them.

"M-Services" is a model that accommodates the rising number of mobile subscribers in South Africa. It aims to improve the implementation of e-government functions. The rapidly growing numbers of mobile subscribers make this a very relevant model in South Africa. Mobile phones are being used more and more for online activities, such as banking, which makes it a viable option for online participation.

“Government Online” is the government website. It is a crucial part in e-participation, especially in political processes. On the website, there are links where citizens can ask questions or comment about political processes that affect them, such as elections.

“Talk-to-government” is a model based on call centres. These call centres provide citizens with information and attempt to answer any questions the public might have. The call centre can make use of personal workers, or interactive voice response (IVR).

“Gateway service centre” is a more personal model, giving citizens the opportunity to schedule a meeting with a government representative. These centres should be situated in high density areas, where the most people can benefit from it and where they are easy to access.

#### **10.4 Policies influencing online participation**

Legislation and policies play an influential role in most South African processes. South Africa does have a numerous policies that channel online participation into the right direction. These policies are all complementing and supporting e-participation. Mutala & Mostert (2010:40-41) investigated some of these policies:

The “Freedom of information policy” gives the citizens of South Africa the right to have access to information that interests and affects them. It is clear in its objectives that it allows the sharing of information with the public across government departments. For e-participation, this policy is very relevant, because now the government must make information available to the public and many citizens would like to access information through websites.

The “ICT policy” in South Africa focuses on transforming interaction between government and communities with the help of technology infrastructure. The ICT policy has given the public of South Africa “power” to use technology-based tools to communicate with the government and other organisations. The use of telecommunication devices (TV’s, radio, cell phones and the Internet) are now more available to the public.

The “Universal service and access policy” aims to achieve service delivery to all South African citizens. It focuses on public awareness of the benefits of ICT services and improving the level of access to these services. The policy focuses on under-serviced communities, providing them with access to ICT services. Service delivery is of cardinal importance in South Africa and this policy strives to improve ICT systems in South Africa, which is a service for the people. That is why this policy is very relevant in the e-participation context.

Lastly, the “E-government vision” is a web portal that provides information on government services, legislation, policies, community projects etc. to the public. South Africa has many different cultures and eleven languages and this portal takes it into consideration, translating the information it provides in all of the languages, therefore equipping every citizen in South Africa with the opportunity to have equal access to information that interests and affects them. (Farelo & Morris, 2007:8).

There are other policies in South Africa that drives the functioning of e-participation even further, but with only the above-mentioned policies it is already clear that legislation in South Africa favours e-participation. With efficient legislation and policy frameworks available, it is possible to initiate e-participation. Although there are many

challenges for e-participation in South Africa, which will be discussed in the following section, the policies explained above make the implementation of e-participation services much more realistic.

### **10.5 Challenges in South Africa**

South Africa is the leader in ICT developments in Africa (Mutula & Mostert, 2010:41). It is not difficult to believe this when taking into consideration the technology infrastructure found in the country, as well as the initiatives and policies supporting it. This opens up the gateway for effective e-participation in the country. Unfortunately, as Mutula & Mostert (2010:41) indicate, there are many challenges in South Africa that hinders the successful implementation and growth of e-participation processes.

Firstly, Perry (2008) states that e-governance in Africa has not been progressing as well as it should. The UN e-government survey of 2008 showed that South Africa was ranked in 61<sup>st</sup> position. In 2005, the survey ranked South Africa in 58<sup>th</sup> position. There was a drop, suggesting that South Africa might not yet be able to implement its technology infrastructure and policy frameworks effectively in its e-government programmes to improve the participation of citizens in political processes. It is a challenge for the country, because the population is growing and these initiatives need to improve to account for the high number of citizens who want to participate in processes and decisions that affect them, especially those living in rural areas.

A significant increase in energy demand can be seen in South Africa over the last couple of years. The increase in demand outweighs the increase in capacity to provide energy (Mutula & Mostert, 2010:44). This led to the increase in electricity prices. According to Politicsweb (2013) the price of electricity was 18 cents per kWh back in 2007, but electricity prices are increasing and it is estimated that it will be 124 cents per kWh in 2017. This is not in the best interest of the country, because 50% of employees in South-Africa earns between R1500 and R6500 monthly (Statistics SA, 2010). An increase in electricity prices therefore proves to be very difficult for 50% of South African employees. The lack of sufficient energy proves to be a problem for the government and other organisations who want to implement e-participation. Without reliable energy sources, the efficiency of any technological system is at risk.

As already mentioned, poverty poses a challenge for e-participation in South Africa. Internet access should be as cheap as possible to maximise the amount of users and ultimately the amount of online participants in decision-making processes. Unfortunately, the prices of Internet are too expensive for the majority of the country (Khumalo, 2013). Only about 34% of South African adults use the Internet (Khumalo, 2013). Although broadband cover 90% of the country (Mutula & Mostert, 2010:41), it is too expensive to access for the rest of the citizens.

A total of 45% of South African citizens are living in rural areas. "Rural areas are often characterized as information-poor...the rural poor typically lack access to information vital to their lives and livelihoods." (Islam & Hasan, 2009:537). This means that nearly half of the South African population are not well informed, making it difficult to execute e-participation and to expect the ill-informed rural residents to make valuable contributions to any process.

Information and communication technologies are not simple. They require specific skills in technological systems, digital networks and programming. According to Payle (2013) there are technical skills shortages in South Africa and

it is threatening business growth in the country. The lack of sufficient skills may pose one of the biggest challenges for the country. This shortage of skilled technological workers is worsened by the fact that the ICT workers in South Africa leave the country to work in developed countries (Mutula & Mostert, 2010:44).

Metal theft has increased over the last couple of years. Criminals steal metal, including copper cables, which are used for telecommunication services. The stealing of these cables causes disruptions in the provision of electricity, Internet and mobile services. It is also very expensive to replace.

In South Africa, the reality of poverty, inequality, illiteracy and even corruption is very prominent. This poses a challenge for effective e-participation, as technology systems require a level of literacy and funding. This is problematic for the government in two ways. Firstly, they cannot execute quality participatory processes due to large numbers of citizens who cannot work with, and evidently participate by means of, e-participation systems. Secondly, the attitude of the citizens towards technology-based methods is becoming negative. A study done by Meyer (2007) showed that South African citizens who struggle to use the Internet at both the provincial and local levels are disappointed at the level of success they have with it. Citizens are therefore discouraged to continue using the Internet, because of the low level of success they have experienced with it.

South Africa faces many challenges that impede the improvement of its e-participation systems. As a third-world country, there are unfortunately certain issues that cannot be ignored such as poverty, illiteracy and inequality. These challenges require attention and more effort should be made to minimise the effect it has on the country and its citizens.

### **10.6 Case study: Vaalharts community project**

Vaalharts is an area close to the town of Hartswater in the Northern Cape Province in South Africa. The Vaalharts area was once very under-developed and there is not much technological innovation present in the area. The Vaalharts community project is an umbrella project, combining 13 sub-projects of different health science disciplines of the North-West University with a strong emphasis on building inter-sectorial partnerships to improve rural health and well-being holistically. However this has grown in the past couple of years, with other faculties joining the Health sciences disciplines to empower and improve these communities through work-integrated learning and various workshops/interventions (Barratt, 2013).

This project follows a bottom-up, or grass-roots, approach. Its approach to development is very similar to the Health sciences approach discussed in section 9.2.2. It is interested in what the users of the area (the local community members) want and what their needs are. Its main focus is asking the citizens what they want and then trying to provide in these needs.

That is why public participation is very important in the project and why effort goes into getting the public involved in decision-making processes. Accordingly the project will be evaluated as a case study of technological influences in participation in South Africa (Barratt, 2013).

10.6.1 Introduction of the digital doorway project as part of participatory planning

The project has used surveys and questionnaires many times in the past to acquire information from the public, but in 2013 the project started investing in a sub-project, the digital doorway project, which focused on technology-based methods. Firstly, to improve the computer literacy of the public and providing them with information and secondly to provide an e-participation system where citizens can comment or enquire about certain aspects that affect them.

Figure 37 illustrates the device which the project installed to fulfil these two goals. It is called a hub, a computer protected by steel and thick glass so that it cannot be stolen or broken by community members (Barratt, 2013).



Figure 37: Hub implemented in the Vaalharts area

Source: Barratt (2013)

This phase of the project is still relatively new and therefore only two hubs have been planted in the whole area. One of the hubs, the one seen in the figures to follow, is stationed at a pre-primary school. The reason for this being that it is safer there and because young children will get the most exposure to the hub and hopefully gain valuable computer skills (Barratt, 2013).



**Figure 38: Equipping children with technological skills**

Source: Barratt (2013)

This “hub project” is called the digital doorway. The digital doorway is technology-based software which the community can access via two methods. Firstly, via bluetooth (thus at no cost) on their cell phones to retrieve information from the hub. As mentioned earlier in the chapter the majority of citizens, even rural citizens, possess mobile phones making it the perfect medium to get involved in decision-making processes. Secondly, by going to the hub itself and working on the computer (Barratt, 2013).

The hub, regardless of how it is accessed, provides information for the community members. Information currently available ranges from educational (school subjects) information to health information and tips. There are also constructive and educational games available on the hub. Even Wikipedia is available on the hub and can be accessed by anyone for information regarding basically any subject. The digital doorway leaders purposely didn’t make Internet available to the community, because trial runs showed that destructive websites, such as pornography websites, were visited on a frequent basis by community members. Figure 39 and Figure 40 below illustrates the importance of education in the project. Local community members are shown how the hub works and what they can do with it.



Figure 39: Community members being educated regarding the hub

Source: Barratt (2013)



Figure 40: Community members being educated regarding the hub

Source: Barratt (2013)

Currently there are no functioning feedback mechanisms in place for the local community members to express their concerns or make recommendations via the hubs, but in the near future a feedback system will be installed and two-way communication will take place between the project leaders and the community members through the hub (Barratt, 2013). Thus far the success of the project has been measured by personally interacting with community members and receiving feedback in this manner. Because the project leaders follow a bottom-up approach this form of feedback is not a problem, but to be more effective a feedback mechanism must be installed on the hub.

Another valuable feature of the hub, although it is still primitive, is that it can save details of the users of the hub. In this way every time a member uses the hub it will save details of the user in a database. This information can be extracted by the project leaders to retrieve certain information, for example the project leaders will be able to see how many female and male community members used the hub during a certain period. This is also a form of public participation. As already stated, this mechanism is currently not very advanced and detailed, but it will receive more attention in the near future and will be improved (Barratt, 2013).

Therefore, regarding effective digital public participation for decision-making purposes, the hub is still not extremely efficient, but it has potential and according to the project leaders they are pursuing effective public participation by means of these hubs.

### 10.6.2 Challenges

Although this project proves to be very beneficial to the community as well as to the project leaders, there are numerous challenges that make it difficult to initiate effectively the e-participation system in this project and get accurate results from it.

The main challenges described in this project are the same as in the whole of South Africa. The lack of education, literacy and inadequate communication skills make it difficult to get the community effectively involved. English and Afrikaans are the languages that the project leaders are able to speak and the community members speak Sotho. If

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they had a good education they would have been able to understand English quite easily, but now they speak in very “broken” English and they struggle to understand it.

Apart from physical poverty, the community members also have a “mental poverty”, meaning that they are so isolated from society that they do not know what is going on in the world. This area is so rural that the community members have zero knowledge of any technological equipment or networks. It is completely foreign to them. They do not even know what the Internet is and what they can do with it. Trying to explain this to them is very difficult, because the explanation goes hand in hand with terminology that the community have never heard before. It can be very frustrating.

Lastly, because it is so rural the signal can be a problem sometimes. Most of the times it is not a problem, but occasionally the signal breaks down and the system is useless without a strong signal.

### 10.6.3 Evaluation of digital doorway as participatory planning tool

The digital doorway project has been quite successful in providing the community with the opportunity to learn more about technology and to have access to updated information about basically anything. The hub can be defined as a digital encyclopedia. The whole digital doorway project is very effective, but the location is extremely important. That is why one of the hubs was put in a pre-primary school. If the children can learn from a young age how it works and how to acquire information it can help them in future.

Feedback have been gathered through the digital doorway system. It is easier to provide information to the community members and the fact that it is free really motivates the citizens to participate, because they live in poor conditions and do not have the funds to participate in decision-making and development processes.

**Table 29: SWOT analysis of digital doorway project**

<b>Digital doorway project</b>			
<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Cannot steal hubs</li> <li>• Useable through various ways: Mobile phone (Bluetooth) and at hub itself.</li> <li>• Bottom-up approach. Focus on community needs.</li> <li>• Most users have a mobile phone, therefore able to participate.</li> <li>• Sustainability is an important goal.</li> <li>• Provide a variety of information for community: Health tip, education, constructive games.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of knowledge/education among public – Difficult to communicate and teach them how the hubs work.</li> <li>• Giving the community too many resources can lead to inappropriate behaviour: Boys used Internet to view pornography.</li> <li>• Strong enough signal is sometimes a problem.</li> </ul>	<ul style="list-style-type: none"> <li>• Young children have opportunity to enhance their technological skills. Beneficial to their future.</li> <li>• Create forums for interactive, two-way communication between community and project leaders.</li> <li>• Using personal information of community members to create an information database to analyse user activity at the hubs over a period of time.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires personal information from users. Users can be reluctant to give information.</li> </ul>

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<ul style="list-style-type: none"> <li>• Train community members how hubs work. Can provide them with supervisor positions – job creation within community.</li> <li>• Can accommodate many users at once leading to faster assistance for members.</li> </ul>			
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Source: Barratt (2013)

**10.7 Conclusion to participatory planning and technology usage in South Africa**

South Africa has potential to implement and execute e-participation processes. The country possesses the infrastructure and various initiatives have been implemented to improve online participation. As seen throughout this chapter, there are many positive aspects in South Africa, suggesting that e-participation can enhance urban planning processes and provide the government or other organisations with accurate data and results regarding the public's opinion about a certain matter.

Unfortunately, the reality is that South Africa is a third-world country and there are certain challenges in South Africa that cannot be ignored. The lack of financial means, inadequate education and illiteracy are challenges that are associated with a third-world country, and it is true in South Africa. Furthermore, communication is a problem due to the many different languages in South Africa as well as the illiteracy. There is the technology infrastructure in the country, but it is too expensive for the majority of the citizens to acquire.

It can be concluded that South Africa can adopt the use of technology-based methods in their public participation processes. There are already various e-participation practices seen in South Africa. But to achieve total success in this area the above-mentioned challenges have to be taken into consideration and efforts should be made to try and minimise the effect it will have on technological processes in the country.

Lastly, it can be concluded that Urban Planning in South Africa can benefit from implementing participatory processes within the discipline, even more so when utilising technology-based methods during the participatory process. When technology is implemented in participatory processes, it enhances data collection processes, includes more participants in the process and provides faster results for Urban Planners to analyse and take into consideration during decision-making and development processes. Knowing the attitude of the public towards a certain issue, gives Urban Planners the ability to make more accurate scenario predictions regarding the issue (whether it is going to be successful or not), providing them with the opportunity to make changes to their initial plan, if necessary, in order to improve the chances of success of the specific project.

Sustainable green environments in South Africa will be enhanced within the Urban Planning discipline if technological methods are implemented as part of participatory processes. The public is mostly pro-environmental when it comes to development considerations, therefore getting more members of the public involved by means of technological

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participatory methods will be favourable for the environment. For sustainable green environments this can be very beneficial as Urban Planners will take note of the public's interests and focus on sustainability in their development plans.

# **Chapter 11: Conclusions**

## **11.1 Introduction**

Public participation is crucial when development decisions have to be made. In this sense, public participation should form part of any decision-making process, as it contributes to effective and successful decision-making in terms of future development options and possibilities, resulting in more sustainable environments.

From the theoretical investigation of sustainability, it is evident that more sustainable development initiatives and approaches are needed in order to provide answers to degrading environments resulting from human interference. In terms of public participation, the theoretical investigation identified the various advantages and challenges that participatory planning processes can offer to Planners and communities. Overcoming these challenges and benefitting from the advantages is crucial in the light of successful and effective participation. The advances in technology brought along a new dimension in participatory planning, enhancing the efficiency of public participation, but also introducing different challenges.

The empirical study investigated the current execution of public participation, on an international and South African level in an attempt to reach an accurate conclusion on what the challenges, opportunities and threats are concerning participatory planning in practice.

The aim of this chapter is to interpret the findings made in the theoretical and empirical study and to convey it in such a manner to understand the context, complexities and opportunities regarding public participation and the role thereof within the Urban Planning profession, guiding sustainable development initiatives.

## **11.2 Conclusions to research questions**

The following conclusions were made with regard to the research questions captured in Chapter 1.

### **11.2.1 What is considered a sustainable development approach? (Refer to Chapter 2)**

Sustainable development, as defined by the Brundtland report, is defined as “development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (Hauff, 2007:2).

Sustainability consists of mainly three relevant factors which have to function properly, and in relation to one another, namely, social factors, economic factors and environmental factors. Social factors include political participation by societies, gender equity and decent provision of social services such as education and health. Economic factors include goods and services that must be produced on a consistent basis, sectoral imbalances that should be avoided to stop damages to agricultural/industrial production and the avoidance of debt. Environmental factors include stable and available resources, maintaining biodiversity and atmospheric stability and protection of renewable resources.

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A sustainable development approach is becoming increasingly important in the modern developing world, taking these social, economic and environmental factors into consideration.

These factors are regarded the pillars of sustainable development. Table 30 below shows the current state of the three pillars on a global scale:

**Table 30: Problems with the three pillars of sustainability around the world**

<b>Social problems</b>	<b>Economic problems</b>	<b>Environmental problems</b>
<ul style="list-style-type: none"><li>• Poverty in many countries.</li><li>• Gender inequality.</li><li>• Inequity in terms of health, income and political influence.</li></ul>	<ul style="list-style-type: none"><li>• National debt in many countries.</li><li>• Ineffective use of non-renewable resources.</li><li>• Gap between first- and third-world countries.</li></ul>	<ul style="list-style-type: none"><li>• Global warming.</li><li>• Pollution.</li><li>• Diminishing natural resources.</li><li>• More plant- and animal species close to extinction.</li></ul>

Source: Own creation (2013)

Fortunately, there are a series of initiatives or programmes that have been implemented to assist in the fight for sustainability and enhance the sustainable development approaches, including but not limited to the UN Habitat Agenda, the UN Millennium Development Goals and in South Africa the Southern Africa Sustainable Development Initiative (SASDI).

### 11.2.2 What is participatory planning? (Refer to Chapter 3)

Public participation can be described as the process where the ideas, opinions and concerns of local communities are collected and analysed to be used as resources to improve plans and projects that interest and affect them (Ferguson & Low, 2005:7). It is a tool used (among others by Urban and Regional Planners) to provide a better understanding and knowledge of a specific site, the complexities and challenges, as well as providing an insight into the needs of the community residing in the specific area..

Public participation is based on a series of principles (refer to Table 6). Firstly, the public must understand the context of a development. Clear expectations should be defined by authorities, which will make the public understand their role and level of involvement within the process. Honesty and openness as part of two-way communication between the public and the authorities are essential. Lastly, there should be an opportunity for the public to express their feelings and make suggestions in a decision-making process. These principles are very important and should always be honored in participatory processes in order to ensure effective public participation.

There are many advantages of public participation for both the public and the authority initiating the participation process. Table 31 describes the advantages for both the public and authorities if an effective participatory process can be executed.

Table 31: Public participation advantages

Developers (“experts”)	Public
More effective strategies	Empowerment
Resolve/avoid conflict	Increased awareness
Broader knowledge	Optimism
Understand actual needs of users of space	Willingness



Source: Own creation (2013)

Public participation forms a ripple effect of advantages for the public, as seen in the above table. One advantage automatically results in another. Public participation produces a win/win situation for both parties.

Finally, public participation is characterised by certain challenges that authorities need to address and take into careful consideration before initiating any participatory process. Stakeholder identification and level of involvement is crucial in this regard. Communities need to understand their role (and level) within the participation process to ensure the success of the process.

Public participation is not merely a system where the public have an opportunity to complain about issues that grieve them, but it is a process where authorities ask questions, community members give answers and together they come up with solutions or ideas that benefit both parties. It is intended to be two-way communication to ensure vice-versa benefit.

### 11.2.3 Are there any advances in participatory processes? (Refer to Chapter 4)

The demography of the world has changed over the past couple of decades. The size of populations have grown at such a rate that certain countries forbid families with more than one or two children. The income distribution of populations has also changed with the rich getting richer and the poor getting poorer, putting pressure on governments and organisations that prioritise the needs of communities. In this sense, the effectiveness of “traditional public participation processes” deteriorated. The practicality and effectiveness of getting thousands of citizens involved through public meetings posed challenges.

The recent advances in technology also created opportunities and advances in participatory processes, improving public participation processes by getting more citizens involved at a faster rate.

Advances include methods such as GIS mapping, three-dimensional modeling, creating virtual realities and simulators (refer to section 4.2.1). The Internet is also contributing to computerised participation tools, enabling e-participation to connect large quantities of citizens located in different places at the same time. Social media, such as Facebook and Twitter, are increasingly being used as a method of online participation.

There are advantages and disadvantages of implementing technology-based tools in public participation processes. Table 32 summarises numerous advantages and disadvantages.

Table 32: Advantages and disadvantages of technology-based participatory methods

Advantages	Disadvantages
Improve public education – by using the Internet to access information, participants will become more computer literate.	Although these tools impress participants very much due to the visual presentation they offer, it still does not fully provide users with the authority to engage and have an influence on decision-making processes.
Very effective – large number of participants can be reached simultaneously, therefore saving time.	Responsiveness of participants is not guaranteed
Citizens who are hundreds of miles away can still actively participate and influence decision-making processes.	Computerised tools can be very difficult to use, making the public dependent on experts to use these tools for them.
The availability of information is very good.	Cost – The software and hardware needed to utilise computerised tools are very expensive.
Visualisation – community members do not necessarily want to listen to Planners or other professionals trying to convince them of a project. They are very interested in what a proposed development is going to look like.	It is possible that visual presentations can be misleading to the public.

Source: Own creation (2013)

Computerised methods are not intended to replace traditional methods, but to enhance the participation process and successful implementation thereof. There are definite disadvantages associated with technology-based tools, as seen in the above table, but in many countries, governments and authorities are trying to minimise these disadvantages. Downing (1999:2) believes that “Citizens who can sit at a computer terminal in the comfort of their home, office or community centre...who can get answers to technical and complex questions, are more likely to participate in the process”.

11.2.4 Can participatory planning enhance and contribute to create sustainable green environments? (Refer to Chapter 5)

Participatory planning can enhance sustainable development by focusing on the inclusion of the three pillars of sustainable development as part of the participatory planning process, identifying and enhancing issues of social, economic and environmental importance. Public participation can, in itself, also enhance sustainable development initiatives, as it focuses on the actual needs of the communities, leading to functional, effective spaces. In terms of the Urban Planning context, these pillars can be related to specific spaces, referring to usable spaces (implying a social function connected to the space), valuable spaces (implying an economic function connected to the space) and visual spaces (implying environmentally friendly and beautiful spaces).

Table 33 shortly explains the difference between the spaces, as well as the role of public participation to assist in the enhancement of these spaces.

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**Table 33: Comparison between different sustainable spaces in terms of public participation**

	<b>Usable space</b>	<b>Valuable space</b>	<b>Visual space</b>
<b>Description</b>	Involves the activities running within a space, to attract people and to make the space convenient for the public to function in this space.	Economic value. A higher monetary value increases the value of a space.	Characterised by what it looks like and how visually pleasing it is to the public. Includes type of colours and materials used.
<b>Public interest in space</b>	√	√	√
<b>Can -public participation enhance space</b>	√	√	√
<b>How does public participation help?</b>	Involvement of public can lead to changes in a space that the public wants to see. These changes will lead to activities that will be used by the public. More citizens will be attracted so this space, improving its social status. Citizens feel a sense of identity and motivated towards the space.	Involvement of public provides them with opportunity to say what shops or businesses they want in the space. If it is approved, the public will use the space more, because the activities which they need are in the space. This leads to more consumers in space and a higher economic value. Citizens feel a sense of responsibility towards the space.	Public will most of the time support environmental features rather than economic features. Involvement of public provides opportunities for them to increase the attractiveness of a space, resulting in the public spending more time in the space and increasing environmental protection. Citizens feel a sense of ownership towards the space.

Source: Own creation (2013)

Participatory planning was found to enhance and contribute to the sustainable development approach (especially enhancing the development of sustainable green environments) as participatory planning was proved to prioritise social issues (needs identified by communities and used to plan urban spaces), along with environmental issues (as communities often choose green environments instead of commercial or urban developments, in contrast to local authorities and developers who would often rather choose economically viable development options), resulting in economically viable and valuable spaces. Sustainable development approaches are thus enhanced and promoted by implementing effective and efficient public participation processes, as the public are given the opportunity to influence the areas they function in, resulting in areas that provide for the actual needs of the public, ensuring effective use of these spaces. As a result of areas that provide in the needs of the public, the public will use the space more and will want to get more involved, increasing the value (economy) of the space.

A space that is usable (social pillar), visually attractive (environmental pillar) and valuable (economic pillar) can, in the context of this research, be defined as a sustainable green environment.

A more detailed description of these spaces are presented in chapter 5, proving that public participation can enhance the planning of each one of these spaces, improving sustainable development at the same time. Sustainable development is much needed across the world and by getting the public involved together with the knowledge of Urban Planners and other experts, thereby following a more bottom-up approach, sustainability becomes more reachable (Refer to Figure 14).

Apart from the advantages of technology in public participation processes, mentioned in The Internet is also contributing to computerised participation tools, enabling e-participation to connect large quantities of citizens located in different places at the same time. Social media, such as Facebook and Twitter, are increasingly being used as a method of online participation. There are advantages and disadvantages of implementing technology-based tools in public participation processes. Table 32 summarises numerous advantages and disadvantages.

Table 32, it is also important to mention that the implementation of technology in participatory processes will improve the potential development of sustainable green environments. Being able to get more citizens involved in a shorter amount of time will result in more accurate information regarding how the general public feels towards a development. This will enable Urban Planning to produce balanced spaces where the usability, visual components and the value of the space is in harmony, resulting in a sustainable green environment. Furthermore, technology can assist in visualizing a proposed development; along with scenario predictions and forward planning initiatives that builds upon the sustainable development approaches.

The higher the level of citizen involvement in development processes, the more information is gathered by authorities regarding the needs and vision of the users of the surrounding space. With this information authorities will be able to plan and develop areas much better, providing in the needs of the public and therefore improving the sustainability of the area. There is thus a unique relationship between participatory processes and sustainability, because the success of one favours the other.

### **11.3 Conclusions regarding the international approaches to public participation**

Investigating the public participatory situation in several countries provided valuable insight into what the overall view, challenges and opportunities are regarding public participation, acknowledging that nearly every country has a different view regarding participation and therefore executes it differently. By investigating the approaches and successes regarding public participation in a variety of countries, a best-practices analysis could be conducted to guide local planning approaches. This study focused on the case studies of India, Uganda as well as the European Union. Table 34 captures a SWOT analysis of these case studies, identifying the strength, weaknesses, opportunities and threats of the execution of participatory processes within each of the case studies.

Table 34: SWOT analysis of the international participatory approaches

International approach			
Public participation			
Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> <li>• More effort is put into developing creative participatory methods.</li> <li>• Many countries (e.g. The Netherlands) are developed countries, therefore they have more resources to work with.</li> <li>• Variety of public participation methods</li> </ul>	<ul style="list-style-type: none"> <li>• Methods are creative, but not as human driven as they should be.</li> <li>• In certain parts of the world, the public is used only for political benefits.</li> <li>• Countries with very dense populations find it difficult to execute participatory processes.</li> <li>• Challenges such as poverty, poor access to adequate information and lack of effective communication between citizens and government.</li> </ul>	<ul style="list-style-type: none"> <li>• Creative methods lead to better participation.</li> <li>• Developed countries have more resources, therefore more opportunities.</li> <li>• In developed countries, poverty and education is not an issue, thus other factors, such as sustainability, could be focused on.</li> </ul>	<ul style="list-style-type: none"> <li>• If methods do not become more bottom-up communities may become unhappy.</li> <li>• Competition with other countries is a reality and the public's interests could be lost in the process.</li> <li>• Certain modern societies are characterised by declining voter turnout and a reluctance of citizens to state their opinion.</li> </ul>

Source: Own creation (2013)

It was concluded that public participation is implemented on different levels around the world. Every country has its own unique challenges, but there are certain general challenges that are uniform. These challenges include poverty, technological illiteracy, lack of access to adequate information and a lack of effective communication structures between citizens and the government or local authorities.

The empirical investigation furthermore evaluated the degree to which these case studies implemented technology in their public participation processes (methods are described in section 4.2.1). Table 35 evaluates the advances in participatory planning as implemented in the selected case studies. The case studies were divided according to first and third-world status, due to the difference in availability of technology.

Table 35: SWOT analysis of international technology-based participatory approaches

International approach			
Technology-based public participation			
Strengths	Weaknesses	Opportunities	Threats
Third world			
<ul style="list-style-type: none"> <li>• Due to issues (poverty and illiteracy) in these countries, governments</li> </ul>	<ul style="list-style-type: none"> <li>• Third-world problems: poverty and illiteracy, which limit the potential</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for development, therefore increased motivation to</li> </ul>	<ul style="list-style-type: none"> <li>• If methods do not become more bottom-up communities may</li> </ul>

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<p>are motivated to improve their relationship with the public.</p> <ul style="list-style-type: none"> <li>• Governments realise that more community members can be reached using technology-based participation methods.</li> <li>• Already started to implement a variety of ICT tools.</li> <li>• Attitude of citizens are mostly very positive towards public participation.</li> <li>• In many countries policies have been created to support e-participation.</li> </ul>	<p>of technology-based methods in participatory processes (limited access).</p> <ul style="list-style-type: none"> <li>• High % of citizens in rural areas, which are characterised as information-poor with bad communication channels.</li> <li>• In some countries, the size of the population results in very high-density areas, making it challenging to provide enough technological equipment to implement sufficient e-participation.</li> </ul>	<p>implement technology in participation processes.</p> <ul style="list-style-type: none"> <li>• Efficient planning is necessary, giving e-participation an opportunity to prove itself as a helpful tool to improve planning processes.</li> <li>• Technological innovations make citizens very curious, because they are not familiar with it.</li> <li>• If gender inequality in many countries does not apply to e-participation, it can inspire women to participate more effectively.</li> </ul>	<p>become unhappy.</p> <ul style="list-style-type: none"> <li>• If gender inequality in many countries also applies to e-participation, it may upset women leading to rebellion.</li> <li>• Citizens tend to complain about all their problems through the e-participation system, instead of using it to participate effectively in the actual decision-making processes.</li> </ul>
<b>First world</b>			
<ul style="list-style-type: none"> <li>• First-world characteristics: more financial resources and better knowledge.</li> <li>• Citizens are familiar with technology, therefore they will understand e-participation better.</li> <li>• Citizens have improved access to Internet, cell phones and other ICT tools.</li> <li>• Large variety of technology-based methods and projects available.</li> <li>• Governments realise more and more the benefits of e-participation.</li> <li>• More effort is put into developing creative technology-based</li> </ul>	<ul style="list-style-type: none"> <li>• There are many users of e-participation systems, making it difficult to respond to every inquiry or comment.</li> <li>• There are still citizens who cannot afford Internet or a computer.</li> <li>• Older generations are not familiar with technology. Younger generations have an advantage.</li> <li>• Citizens tend to deviate from the original discussion, resulting in huge volumes of “irrelevant” comments.</li> <li>• Governments tend to launch e-participation processes about topics that do not have a direct impact in the specific</li> </ul>	<ul style="list-style-type: none"> <li>• E-participation can overcome challenges such as declining voter turnout and the reluctance of citizens to state their opinion.</li> <li>• Potential for development, therefore increased motivation to implement technology in participation processes.</li> </ul>	<ul style="list-style-type: none"> <li>• In most cases thus far, e-participation did not have the desired impact.</li> <li>• Citizens can easily get bored when using online participation and lose interest.</li> </ul>

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participatory methods.	community they are addressing. Citizens then tend to lose interest in the process.		
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Source: Own creation (2013)

It was found that technological innovations in participatory processes are becoming very popular, even in third-world countries that struggle more to implement technology in their processes. In the case studies examined, the use of technological methods had a positive effect on the participatory processes. Unfortunately, it is difficult to enforce the implementation of technology in participatory processes, because it requires more resources than normal (traditional) participatory methods. This poses a challenge to third-world and even certain first-world countries with limited financial resources.

### 11.3.1 Best practice approaches

Table 36 contains a list of international aspects (from other third-world and first-world countries) South Africa can aim to adopt in its own participatory processes:

**Table 36: Aspects from other countries to enhance the current participatory approach in South Africa**

Other third-world countries	First-world countries
Participatory processes should not be executed only to get more opinions, but to improve the relationship between authorities and the public.	Don't only use traditional methods (section 3.6), but also more creative participatory methods to intrigue and involve community members even further (Table 21).
Invest in efforts to make the citizens excited about technology-based public participation.	Holistic approach – seek to improve social capital and to enhance place-making within public spaces through public participation.
Balance between legislation and reality. Legislation and policies should support public participation and not “control” it.	Manage resources better, so that there are no shortages and prices do not increase drastically.
The relationship third-world countries have with other “stronger” countries pressurises them to improve their own processes. South Africa should consider adopting this viewpoint as extra motivation to improve participatory processes.	Improve computer-/Internet literacy among the citizens so that they will know how to take part in online participatory processes.
Public participation used in the development sector, but it's being implemented more and more in natural conservation and eco-development. This leads to a wider scope of citizens getting involved, because not every citizen is interested in politics or development, but perhaps want to participate in conservation processes.	Technical knowledge – Make better provision for technical students and experts to try and keep them from emigrating to other countries.
Increased two-way flow of information, where there is communication between citizens and local authorities.	Improve access to Internet and other ICT tools.

Source: Own creation (2013)

In the following chapter recommendations will be given on how South Africa can apply these aspects to improve its approach to public participation.

#### 11.4 Conclusions regarding public participation in the South African context

South Africa may be in the same category as India or Uganda, as it is also classified as a third-world country, but according to the Government of Canada (2013), South Africa has the most advanced economy in Africa.

The country has the resources, the citizens who are keen to participate in decision-making processes as well as the motivation to strive for participatory success. Unfortunately, there are certain challenges, as is the case with all countries, making it difficult to execute public participation.

Chapter 9 investigated the current state of public participation in South Africa. By comparing different professions (or disciplines) such as Urban and Regional Planning, the Health Science Department and the Geography/Environmental Management Department with each other, it is possible to get an idea of the current state of public participation in South Africa.

Table 37: Comparing approaches towards public participation from different disciplines

	Town and Regional Planning	Health Sciences	Geography
<b>Method</b>	<ul style="list-style-type: none"> <li>The Town-Planning and Townships Ordinance (15 of 1986) acts as a guideline for public participation.</li> <li>It states that the public should be given notice when there is an application (notice boards and newspaper article).</li> <li>A member of the community can appeal within 28 days from the publication of the notice.</li> <li>If there are objections, a hearing will take place where community members can state their opinions or feelings. A Board shall then make a final decision.</li> </ul>	<ul style="list-style-type: none"> <li>Bottom-up approach</li> <li>Before project is initiated – meeting is scheduled for all relevant stakeholders to discuss the vision of a proposal or plan. Each stakeholder can state his/her case at this meeting and compromises are made until consensus is reached.</li> <li>Involve the public by going into the community and asking exactly what it is they want.</li> <li>ABCD needs assessment – What are the needs of the community.</li> </ul>	<ul style="list-style-type: none"> <li>Combination of Town Planners and Health Sciences.</li> <li>Also a bottom-up approach to public participation, but with necessary legislation in place to guide some aspects of the process (NEMA).</li> <li>Similarities with Town Planning – Also uses notice boards and newspaper articles.</li> <li>Public meetings may be held where all stakeholders are informed of proposals and projects.</li> <li>Technology (e-mail, fax and telephone) is also implemented to get the public involved.</li> </ul>
<b>Positive</b>	<ul style="list-style-type: none"> <li>Every Planner follows the same guidelines (Ordinance), therefore the format of notices and the</li> </ul>	<ul style="list-style-type: none"> <li>By getting all relevant stakeholders to reach consensus, much conflict is</li> </ul>	<ul style="list-style-type: none"> <li>The public are better informed when there are decisions to be made,</li> </ul>

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	<p>application processes stays the same in every part of the country.</p> <ul style="list-style-type: none"> <li>• Other policies (IDP and SDF) within the Planning discipline support participatory processes.</li> </ul>	<p>avoided.</p> <ul style="list-style-type: none"> <li>• Bottom-up – Follow a grass-roots approach. Makes the community very optimistic by talking directly to them and making them feel valued – gives ownership and identity.</li> <li>• Core of existing problems could be revealed by talking to local community members.</li> <li>• Sustainable approach – human driven. Not only to improve health, but also equip communities with skills and education.</li> </ul>	<p>while the necessary legislation is still taken into consideration.</p> <ul style="list-style-type: none"> <li>• Notice to adjacent house owners should be given.</li> </ul>
<b>Negative</b>	<ul style="list-style-type: none"> <li>• The Ordinance is limited in terms of its approach solely to public participation. It does not accommodate participatory processes as well as it should.</li> <li>• Notice boards and newspaper articles are the only way of notifying community members about applications.</li> <li>• Realistically, most of the community members do not even see the newspaper article, which is published for only 2 consecutive weeks.</li> <li>• Adjacent house owners not taken into consideration.</li> <li>• Too many different forms of legislation which cause confusion, e.g. Johannesburg alone has 14 different town planning schemes.</li> <li>• Level of vocabulary in notices is too high for most normal community members to understand.</li> </ul>	<ul style="list-style-type: none"> <li>• Different cultures and ethnic groups in South Africa. Difficult to accommodate and communicate with all the different cultures.</li> <li>• Communities may tend to complain about other “less relevant” issues and if one does not look into those issues they may get demanding.</li> </ul>	<ul style="list-style-type: none"> <li>• Legislation to support public participation, but it exists on paper only and has not yet been implemented in practice.</li> <li>• Participation process is undertaken during the environmental assessment stage, where many strategic decisions have already been made. Therefore the public cannot influence those decisions.</li> <li>• Different cultures and ethnic groups in South Africa. Difficult to accommodate and communicate with all the different cultures.</li> </ul>

Source: Own creation (2013)

Comparing the different disciplines highlights certain ongoing issues which play a fundamental role within participatory processes: legislation and participatory methods. A variety of participatory methods are available in

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South Africa, but in Urban Planning it has not yet been implemented fully. If Urban Planning wants to improve its participatory processes, it should focus on using a wider variety of participatory methods to account for different participatory scenarios such as community size, available finances and time constraints.

In terms of participatory processes, legislation and policies also require attention, because they provide guidelines and the principles for implementing participatory processes. A problem in Urban Planning in South Africa is that legislation does not make provision for inclusive and efficient public participation. The high level of vocabulary can be problematic for citizens as well as the minimum number and variation of methods used (as laid out in legislation). One gets a sense that legislation is “controlling” participatory processes and not guiding it. Certain disciplines such as environmental management do have legislation that supports participatory processes, but it does not enforce public participation, to ensure that it is always executed.

What makes South Africa different from other countries is its history and Apartheid legacy (1948 – 1994) from which the effects are still visible today in terms of the high illiteracy levels and the struggle to integrate different races and cultures. A substantial percentage of the South African community are still feeling the after-effects of Apartheid and this makes it challenging for the government or local authorities to engage in effective public participation processes. South Africa may still have some way to go to be able to compete with international approaches, but the basic point of departure for such participatory processes is in place, captured in legislation, and gaining importance in the local environment. Table 38 below summarises the findings made regarding public participation in South Africa.

**Table 38: SWOT analysis of South African participatory approaches**

<b>South African approach</b>			
<b>Public participation</b>			
<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• South Africa is behind because of our history (apartheid), but therefore the country is motivated to improve.</li> <li>• Variety of cultures, there are therefore more opinions and ideas which lead to better proposals.</li> <li>• Support from legislation and policies.</li> <li>• Positive attitude towards public participation.</li> <li>• Variety of “traditional” participatory methods available (although not implemented in Urban</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to accommodate all cultures and ethnic groups.</li> <li>• Apartheid era (1948 - 1994) still has a negative impact on public participation - could not evolve as fast as it should have.</li> <li>• Illiteracy of citizens – difficult to understand participation process.</li> <li>• Too many variations of legislation for different parts of the country. Can cause confusion among Planners.</li> <li>• Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Definite opportunities for improvement.</li> <li>• High % of citizens living in poverty and would therefore be very willing to cooperate in participatory processes.</li> <li>• More bottom-up approach can be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• If there is no consistency when different cultures are approached it may lead to racial disputes.</li> <li>• Developing country, therefore not as many resources.</li> <li>• In some fields public participation does not lead to sustainable results.</li> <li>• Unrealistic expectations from citizens.</li> <li>• Gap between theory and practice. Struggling to implement ideas.</li> </ul>

Planning, but in other disciplines).	between authorities and citizens.		
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Source: Own creation (2013)

As already stated, South Africa is more advanced than most third-world countries, making the implementation of technology in its participatory processes more achievable. The following SWOT analysis summarises the state of technology-based participatory methods in South Africa.

Table 39: SWOT analysis of technology-based participatory approaches in South Africa

<b>South African approach</b>			
<b>Technology-based public participation</b>			
<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• South-Africa has the most advanced economy in Africa.</li> <li>• South-Africa the leader in ICT developments in Africa</li> <li>• Technology infrastructure (telecommunications, cell phones, telecentres) available in the country.</li> <li>• Cell phone industry growing – 89% of citizens are cell phone users.</li> <li>• Numerous initiatives to improve e-participation (refer to section 10.3 .</li> <li>• Numerous policies and legislation supporting the implementation of e-participation.</li> <li>• Government and organisations are motivated to make ICT's successful in South-Africa.</li> </ul>	<ul style="list-style-type: none"> <li>• Third-world country, large part of society characterised by poverty, illiteracy, inequality and a lack of communication skills.</li> <li>• Difficult to accommodate all cultures and ethnic groups.</li> <li>• Gap between rural citizens and urban citizens regarding education and information provision.</li> <li>• Internet and electricity are too expensive for the majority of South-African citizens.</li> <li>• Copper cable theft, disrupting the provision of electricity and telecommunication services, such as Internet and mobile services.</li> <li>• In certain remote areas, there is bad Internet and cell phone coverage.</li> </ul>	<ul style="list-style-type: none"> <li>• Government realising the importance of ICT's, therefore an increase in ICT investments has been noticed.</li> <li>• Availability of technology infrastructure provides opportunity for e-participation.</li> <li>• More focus being put on rural areas – 45% of nation – possible to reduce social isolation.</li> <li>• ICT's provide opportunity to improve technological literacy and provide communication channel between government and rural citizens.</li> </ul>	<ul style="list-style-type: none"> <li>• Although infrastructure is available, sources indicate that e-governance is going backwards in South-Africa.</li> <li>• High Internet and electricity prices lead to less participants for e-participation.</li> <li>• Citizens struggle to understand e-participation systems, therefore the attitude of citizens toward ICT's is becoming negative – discouraged to use these tools.</li> <li>• Lack of technological skills in South-Africa. Skilled ICT workers leaving the country.</li> </ul>

Source: Own creation (2013)

In terms of technology-based participation processes, South Africa has potential to implement and execute e-participation processes. The country possesses the infrastructure and various initiatives have been implemented to improve online participation. However, as the next section identifies, various gaps still exist before realising a successful participatory planning system that can enhance sustainable development approaches.

### 11.5 Gap analysis

In the context of this study, a gap analysis was conducted, identifying gaps within the current South African public participation processes. These gaps are listed below and categorised as (1) gaps as a result of local context and complexities; (2) gaps that exist due to bad planning in South Africa; and finally (3) gaps between theory and practice in the country (implementation difficulties).

#### 11.5.1 Gaps as a result of the local context and complexities:

The following “gaps” are identified in the current South African public participation processes:

- Social fragmentation due to the Apartheid era. Many citizens in South Africa, mainly non-white citizens, still feel excluded from society and live in very remote areas. Due to location and mobility constraints, residents of these areas often do not attend participatory planning meetings and events.
- The variety of cultures and backgrounds in the country makes it difficult to accommodate every citizen in participatory processes. Using one method may not be acceptable for certain culture groups, while others are fine with the specific method.
- There is a growing population in South Africa. This implies that the level of illiteracy and poverty will rise. Communication between authorities and local communities will become increasingly difficult.
- There is a high level of computer illiteracy among citizens. Older generations are not used to technological equipment and cannot participate in online participation processes. Furthermore, the high poverty rate in the country suggests that exposure to technological equipment is minimal.
- Copper cable theft, disrupting the provision of electricity and telecommunication services, such as Internet and mobile services is problematic.
- South Africa is a developing country. It therefore does not have an unlimited supply of resources. The struggle to provide citizens with sufficient resources, such as electricity and Internet, without asking high prices, is very difficult and undermines the participatory process.
- Losing technical knowledge, because ICT experts are leaving the country to work in developed countries where they can earn more.
- Citizens become discouraged when participating online, because they do not understand how it works and can get discouraged to use technological participation methods.

#### 11.5.2 Gaps that exist due to current South African approaches and processes

The following “gaps” are identified in the current South African public participation processes:

- Gap between rural and urban areas. Although citizens in rural areas are difficult to reach, not enough effort is put into including rural citizens as much as urban citizens.
- Although resources in South Africa are limited, electricity prices are still higher than they should be. If resources are better managed, the prices of Internet and electricity do not have to be that high.
- Legislation “controls” development processes. The problem is not necessarily that the legislation controls the land use management processes, but rather the legislation does not accommodate public participation as well as it should. For example, the insufficient number of public participation methods which the Town-Planning and Townships Ordinance (15 of 1986) make provision for (refer to section 9.2.1.2).
- The level of vocabulary used in legislation and policies is too high for participants to understand. For example, when reading a rezoning notice next to an erf, the average citizen will not be able to comprehend what the notice is saying and potential participants are lost in the process.
- In certain disciplines, a purely top-down approach is still accepted. It has been proved as an unsustainable approach and it is not pleasing to the community to experience.
- There are currently not enough sustainable development initiatives in South Africa, which is crucial, because as a developing country it is very important to be sustainable. Sustainability complements participatory processes, therefore public participation cannot get sufficient attention from development projects in South-Africa.

### 11.5.3 Gaps between theory and practice

The following “gaps” are identified in the current South African public participation processes:

- Definition: Public participation is not well defined in South Africa. In section 3.2.1 the term “Stakeholder engagement” is mentioned. It is a more correct term to use and it provides a more correct approach to participatory processes. In practice, Urban Planning currently still refers to “public participation” which can be misleading.
- Chapter three pays considerable attention to the public participation process. It’s a general process which needs to be implemented to achieve successful participatory processes. This process is not fully and successfully executed in South Africa. It leaves a gap in the participatory process.
- One of the advantages of public participation (section 3.4.1) is to resolve conflicts. In many cases, in South Africa, the opposite happens within Urban Planning. Much conflict and many disputes have arisen during the public participation process.
- Table 6 mentions that context is extremely important in participatory processes. It means that the public should understand what is going on with a specific project and what the goal of the project is. Because the current participatory methods in South African Urban Planning are not very extensive, the public are not always kept up to date regarding projects and they do not always understand why certain projects are carried out.

- In theory, there are numerous participatory methods which can be used during project developments. Many of these methods are available in South Africa, but are not being implemented to their fullest potential in Urban Planning. Other disciplines (Geography/Environmental management) use these methods more extensively.

## **11.6 Conclusion**

Public participation plays a cardinal role in any development and planning process where decisions have to be made. Whether they are political, environmental, social or economic decisions, it is always beneficial to get the public involved. In chapter three a variety of advantages were mentioned, proving that participatory processes are beneficial to the organisations leading the participatory process, as well as the participants themselves.

The use of technology within participatory processes is not necessarily a new phenomenon, but it has only started gaining interest among governments and other organisations during the past couple of years. It has not yet been utilised to its fullest potential, but strides are being made to improve the effectiveness of technology in public participation. It is clear that by using these new techniques, public participation can reach a new level where more citizens can participate in decision-making processes in a shorter period of time, yielding better results for governments or any organisation that implements this type of participation.

The issue of sustainable development has been discussed in numerous debates over the years and the necessity thereof was brought into question by many experts. Chapter two discusses the current state of the world and it is clear that due to human interference, the world is deteriorating. Sustainable green environments are therefore very important and anything that can support it should be implemented and invested in.

Unfortunately, it is not that simple to resolve all the issues highlighted in this chapter. The reality tends to differ from the theory. That is why, in the following chapter, recommendations will be given on how to improve the implementation of technology-based public participation methods in South Africa. The country can learn many things from other countries in the world, implementing best practices and some of the international principles can be adopted in South Africa to improve its public participation processes and overall sustainability.

Furthermore, recommendations will be given on how to improve participatory planning approaches, applicable to South Africa, as well as the rest of the world. Sustainable development is crucial and certain steps should be taken to improve it. Enhancing effective participatory planning processes within the Urban Planning approach is one such a solution.

# **Chapter 12: Recommendations**

## **12.1 Introduction**

Participatory planning can ensure the realisation of sustainable development initiatives and the development of sustainable green environments, as participatory processes focus on the social issues and prioritise green space planning, resulting in viable, valuable spaces. South Africa has various challenges in terms of realising such effective participatory processes that will enhance the sustainable development approach. This research placed emphasis on the challenges, as well as on the potential South Africa has in terms of participatory and sustainable development approaches. This chapter aims to provide recommendations on how South Africa should respond, move forward, improve, and ensure inclusive and effective participatory approaches, while enhancing sustainability through these approaches.

## **12.2 Recommendations to address the gaps in South African participatory approaches**

In the previous chapter several “gaps” were identified that are prohibiting South African participatory processes from functioning as effectively as they could. Some of these gaps are due to the South African context and background complexities, other gaps exist due to current South African planning approaches and certain gaps exist due to implementation difficulties (theory vs. practice). These gaps were taken into consideration and certain recommendations were proposed to address these gaps and to improve local participatory processes.

### **12.2.1 Recommendations to address the gaps that exist due to the local context and complexities**

- Social fragmentation – Social fragmentation should be minimised, because it causes many citizens to feel excluded from society and not part of decision-making processes. Especially citizens living in remote areas should be included in the decision-making processes. In this sense, technological advances can help improving accessibility to such citizens, using advances like multi-purpose community telecentres (MCT's).
- Culture complexities - There is a variety of cultures in South Africa, complicating communication, because certain citizens might not understand what is going on when a development or decision-making process is being explained to them by the government or any other authority. In this sense, the participatory planning process should accommodate different languages and methods of communication. Technology can further assist in this regard by means of translation services and interactive applications available in most languages. Visual media are available to illustrate development options in comparison to traditional approaches using complex terminology and descriptions that not all citizens might understand.
- Resources – South Africa has limited resources, making the provision of certain services difficult. Participatory planning does not necessarily require various resources, but does however, require a creative, and innovative approach to include all citizens. A sustainable approach towards resources is needed, especially to ensure availability of technology to all citizens.

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- Educating – Along with advances in technology comes the need to teach citizens how to use technological equipment, such as computers, in order for citizens to participate in online participatory processes. Not only technological skills, but also areas of education such as language skills. This can be done by employing some of the citizens that do know how this equipment works at multi-purpose community telecentres, where they can teach other fellow citizens how to use this equipment (Figure 36). In this way jobs can also be created for community members.

Table 40 summarizes the gaps in the current South African public participation processes due to the local context and complexities. Furthermore, the table provide suggestions on how to reduce these gaps, as well as how the use of technological advances in the participatory processes can further assist in minimising these gaps to improve current South African participatory approaches, which will ultimately result in enhanced sustainable green environments.

**Table 40: Summary of suggestions how to minimise gaps due to South African context and complexities**

<b>South African gap</b>	<b>Suggestions to minimise gaps</b>	<b>How technological innovation in participation will impact these gaps</b>
<b>Social fragmentation</b>	Improve accessibility in rural communities and get these communities more involved in decision-making processes.	Can improve accessibility in remote areas by installing multi-purpose community telecentres at allocated areas. These centres can accommodate many citizens simultaneously and can provide easy access to information. Better informed rural citizens can then also participate in decision-making processes through e-participation at the centres.
<b>Culture/language complexities</b>	Implement a wider variety of language options in participatory processes. For example, do not send out notices or publish advertisements only in English, but also in other languages. Learn what is the most common language spoken in an area and focus on that language.	Technology can assist in overcoming language barriers by means of translation services and interactive applications available in most languages. Visual media can be used to illustrate developments. Therefore difficult concepts do not have to be communicated in a certain language to the citizens. Visual illustrations is a language everyone understands.
<b>Lack of resources</b>	Focus on better management of resources and cut unnecessary expenses. More creative and sustainable ways to get communities involved.	Using multi-purpose community telecentres in rural areas will provide improved participation from community members. One MCT can accommodate a whole community. Therefore not necessary to provide every individual community member with tools to

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		<p>participate. Technology provides more creative options to improve participation, for example using screens installed at community centres during the 2010 FIFA world cup to illustrate proposed development plans, thereby informing large numbers of citizens without using excessive resources.</p>
<b>Education</b>	<p>Improve skills and knowledge of citizens by giving them more exposure to technological tools and other instruments that will improve their language and reasoning skills.</p>	<p>Through multi-purpose community telecentres citizens can be educated by getting exposure to technological tools, such as computers and the Internet. Supervisors at MCTs can give assistance to community members. Constructive computer programs can be available at MCT's, improving language and other brain activities.</p>

Source: Own creation (2013)

12.2.2 Recommendations to address the gaps that exist due to current South African approaches and processes

- Rural challenges – More effort should be put into reaching rural communities. One method is to take the information to the rural areas, instead of expecting rural communities to travel to urban areas to be informed about aspects that affect them. For example, launch campaigns or community meetings within these rural areas to get them informed. This way rural communities will feel more valued and will co-operate in participatory processes. Technological tools can assist in reducing the effects of this gap by sending information digitally to multi-purpose community telecentres located within rural areas.
- Legislation constraints - South African legislation does not accommodate or enforce public participation as well as it should. The vocabulary of certain policies and laws are too difficult for the average citizen to understand. Although the vocabulary of the policies itself should not be changed, the vocabulary of notice boards and newspaper articles should be simplified for citizens to understand it better. This way better participatory planning can commence.
- Quantity over quality – As stated in section 9.2.1.3, Johannesburg alone has 14 different town-planning schemes, with each scheme varying in terms of information and regulations. It is a problem for Urban Planners as well as the public, because they first have to find out which town-planning scheme is applicable to the specific project they are working on. The chosen scheme then has to be studied carefully to find out how it differs from the previous scheme they used. If the public wants access to these legislative documents they should be careful not to investigate the wrong scheme, because these town planning schemes differ in numerous ways, including public participation regulations in each scheme.

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- Johannesburg is one example, but there are other examples as well. These different schemes need to be revised so that they all say the same thing. One scheme should be used for the whole of Johannesburg. It will dramatically reduce administration and concrete, universal regulations could be established for participatory processes.
- Approaches – Purely top-down approaches are unsustainable and will not work very effectively in South Africa. There must be bottom-up elements in development approaches, where the public is approached and asked what it is that they want to get out of a development. They should give their opinions and even get the opportunity to provide good ideas which can be incorporated in the specific development. The utilisation of certain technological participation methods can provide citizens with an opportunity to make remarks, express concerns or submit general comments regarding proposed developments or processes. Social media are an example of this.
- Awareness – Linking with a bottom-up approach, it is crucial for Urban Planning and the government not to implement public participation, because they have to, but actually to understand and realise the importance of participatory processes within decision-making processes and future developments. Accordingly, the government should adapt participatory legislation so that policies and legislation can guide and enforce public participation, without “controlling” it, meaning that they should set strict guidelines for participatory processes without having an effect on the outcome of such processes.

Table 41 summarises the gaps in the current South African public participation processes due to the current South African approaches and processes. Furthermore the table provide suggestions on how to reduce these gaps, as well as how the use of technological advances in the participatory processes can further assist in minimising these gaps to improve current South African participatory approaches, which will ultimately result in enhanced sustainable green environments.

**Table 41: Summary of suggestions how to minimise gaps due to current South African approaches and processes**

South African gap	Suggestions to minimise gaps	How technological innovation in participation will impact these gaps
<b>Rural challenges</b>	Take the information to the rural areas, instead of expecting rural communities to travel to urban areas to be informed about aspects that affect them. For example, arrange community meetings in the community, addressing the citizens there and informing them about issues that interest or affect them.	Installing multi-purpose community telecentres at a community will serve as a source where authorities can send information in the form of digital newsletters or brochures.
<b>Legislation constraints</b>	Vocabulary of policies are too difficult to understand for the average citizen, therefore make notice boards and newspaper	Technological methods do not necessarily have to use words, but can convey an accurate message to the public by means of illustration. For

	articles more “user friendly” by using less complicated vocabulary.	example, providing 3D visualisation of a proposed development will inform the public better than using an Urban Planner giving an informative presentation to a community.
<b>Quantity over quality</b>	Establish concrete, national schemes for urban areas and for rural areas. In this way participatory regulations can be kept the same throughout the country, making it easier to get communities involved in different parts of South Africa.	Using technological participatory methods, such as online participation, there are far fewer variables to take into consideration, making universal participatory regulations easier to accomplish.
<b>Approaches</b>	Implement more bottom-up initiatives in participatory planning by giving local community members reasonable opportunities to have an impact on decision-making. Urban Planning should focus on what community members want.	Efficient technological participation tools are available which can accommodate many citizens at the same time, therefore resulting in more citizens participating at a faster rate. Online forums can be created where citizens can complain, express concerns or leave general comments regarding a proposed development, giving the participatory process a more bottom-up approach.

Source: Own creation (2013)

### 12.2.3 Recommendations to address the gaps that exist due to differences between theory and practice

- Definition – It is necessary to evaluate the definition of public participation and how it is structured. If it were well defined each planner would realise its importance. As discussed in section 9.2.3.1, stakeholder engagement can be defined as “a sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties” (DEAT, 2002:6). The definition of public participation should provide clarity and guidance with regard to the quality and implementation thereof.
- Conflict – Resolving conflict is one of the advantages of public participation, but in many cases conflict between citizens and authorities are not resolved. Conflict arises due to communities that feel they are being ignored by the government or local authorities and that their concerns are not taken into consideration during decision-making processes. This causes problems for participatory planning, because communities develop rebellious attitudes against Urban Planners and other institutions trying to execute participatory processes. This is not good for effective public participation. Conflict can be avoided by following bottom-up approaches and taking the

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concerns of the public into consideration. Technological methods can assist in avoiding and resolving conflict between the public and authorities through feedback systems or online blogs. Providing feedback to the public will show the public that their ideas and comments have been taken into consideration. Blogs are accessible to everyone and all the questions asked and answered can be viewed by the public, meaning that other community members will also see that questions are being answered or not.

- **Methods** – Especially in Urban Planning in South Africa, there are not many methods being implemented to improve public participation. Other disciplines in South Africa, such as in Environmental Management, utilise a wider variety of methods in its participatory processes. Urban Planning in South Africa should therefore aim to use more methods to improve its public participation systems. The methods are available, but are currently not used to their fullest potential.
- **Creative methods** – South Africa should not focus only on using more methods in its participatory processes, but implementing more creative methods as well. The Netherlands in section 8.4.1 uses a series of creative methods in their participatory processes. South Africa should aim to implement these techniques as well.

Table 42 summarises the gaps in the current South African public participation processes due to implementation difficulties (differences between theory and practice). Furthermore, the table provide suggestions on how to reduce these gaps, as well as how the use of technological advances in the participatory processes can further assist in minimising these gaps to improve current South African participatory approaches, which will ultimately result in enhanced sustainable green environments.

**Table 42: Summary of suggestions how to minimise gaps due to differences between theory and practice**

South African gap	Suggestions to minimise gaps	How technological innovation in participation will impact these gaps
<b>Definition</b>	If participatory processes were well defined, Urban Planners and authorities would realise its importance. The definition of “stakeholder engagement” is more accurate and entails that any person that is interested or affected by a development may participate in the development’s decision-making processes on the development.	(Not directly related to technological advances.)
<b>Conflict</b>	Bottom-up approach: Take the public’s concerns into consideration and governments should show that community members are important to them.	Through feedback systems or online blogs. Providing feedback to the public will show the public that their ideas and comments have been taken into consideration.  Blogs are accessible to everyone and all the questions asked and answered can be viewed by the public, meaning that other community members will also see

		that questions are being answered or not.
<b>Methods</b>	Urban Planning can strive to use a larger variety of methods to attract a wider scope of citizens. Within land use management Urban Planning can implement more methods, such as stakeholder meetings.	Computerised methods provide a wide range of options for Urban Planners to use for participatory purposes. Apart from feedback systems and methods to collect public input, certain technological methods can visualise developments and present information in such a way that community members can understand proposed developments better, therefore leading to better participatory processes.
<b>Creative methods</b>	Urban Planning in South Africa should not solely focus on the number of methods, but also the quality. The more creative a methods is, the more citizens will want to be part of the process, leading to more effective participatory processes.	With the aid of technological tools, participatory methods can become more creative. Table 21 provides creative methods used successfully in The Netherlands. South Africa should aim at implementing these methods, because it will make the participation process more entertaining for citizens, ultimately improving the participatory process.

Source: Own creation (2013)

It is clear that there are many gaps in the South African approach that can prohibit effective public participation in the country. The government and other authorities should make conscious decisions to minimise these gaps to ensure sustainable development initiatives.

### 12.3 Best-practice participatory approaches in South Africa

South Africa can benefit from evaluating the international approaches and adopting the best practices within the local context. This can help Urban Planning in South Africa to improve current participatory planning approaches in order to develop improved sustainable green environments. The following sections provide a summary of the proposed best practice approaches that can be implemented in local context:

#### 12.3.1 Proposed best practice initiatives from third-world countries

- The aim of public participation is to get the public involved in decision-making processes, with the end goal of progressing as a country where the government and the public work together. Certain third-world countries, such as India, realise this and therefore seek to improve the relationship between the government and the public. South Africa, being a democratic country, provides the public with the opportunity to get more involved in decision-making processes, but the government can strive to improve this relationship with communities even more. This will lead to a more optimistic and motivated South African public that will result in better participation.

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- Increased two-way flow of information is very important in South Africa. India and Uganda are two third-world countries aiming at improving their two-way flow of information and communication between citizens and local authorities. The implementation of functioning multi-purpose community telecentres in rural areas will drastically improve communications, because online blogs can easily serve as a means of easy communication between citizens and other authorities.
- The attitude of citizens towards participatory processes is very important. A participatory process can only be successful if there are citizens willing to participate and it will not happen unless citizens are enthusiastic about it. Therefore organisations or authorities should invest in campaigns or other interactive activities where the public can be notified in a visual way about a certain issue in which they can become involved.
- South African public participation is usually of a political nature. Politics is extremely important, but there are also other fields that require public input to be successful and sustainable, such as environmental issues. Other third-world countries, such as India, are using public participation in their political systems, but just as much in their environmental/conservation programs. South Africa should strive to enhance public participation in other areas. In this way a larger variety of citizens can participate in decision-making processes, because not every citizen is solely interested in politics.
- Legislation should support public participation, as is the case in many third-world countries, but not “control” it. This is explained in section 12.2.2. India and Uganda use legislation to guide participatory processes and in India the pressure from the public on the government resulted in legislation being changed to benefit the public more. South Africa should find a more bottom-up approach to set the balance right. This can be done by making legislation more “user friendly” in terms of vocabulary and by improving the quality of policies, instead of the quantity.

### 12.3.2 Proposed best practice initiatives from first-world countries

- South Africa (especially in Urban Planning processes) uses a limited number of participatory methods. More creative methods, as used in The Netherlands (section 8.4.1) should thus be implemented in the Urban Planning arena in South Africa. These creative methods can bring a deeper dimension to public participation within Town Planning. It provides a greater variety of methods to reach different communities. With the many different cultures and ethnic groups in South Africa it is exactly what is needed. A more creative approach is needed to arrest the attention of community members and enhance awareness and willingness-to-participate.
- First-world countries, such as countries in the European Union, struggle less with technological illiteracy, because these countries are naturally more technologically orientated. If South Africa wants to compete with these countries it should strive to teach South African citizens more computer skills to make them more competent to participate in online participation processes. With the construction of multi-purpose community telecentres in rural areas, the government can start to improve the overall technological knowledge of the citizens, especially if there are facilitators at every multi-purpose community telecentre assisting the citizens and teaching them on a one-on-one basis.

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- Citizens in countries such as The Netherlands and Denmark have adequate access to ICT tools. In South Africa, however, access to ICT tools is challenging, especially in rural areas. In conjunction with the previous point, the erection of multi-purpose community telecentres at specific locations (mainly in rural areas) will assist in improving the public's access to ICT tools, such as computers and the Internet.

By learning from the mistakes and successes of other countries, South Africa will not only be able to improve its participatory processes but also its sustainable development approaches. As already explained in the previous chapter, if a country can enhance its participatory processes, there is a chance that its sustainable development approaches may improve as well. Many of the international initiatives South Africa can adopt from other countries are also aimed at improving sustainable development, implying that South Africa's sustainable development will automatically improve upon the implementation of these best practice initiatives.

### **12.4 The way forward for technological innovation in participatory processes in South Africa**

#### **12.4.1 The Digital Doorway project**

Apart from recommendations made based on best practice approaches as identified from international case studies, South Africa should also focus on optimising local resources, local creativity and innovation, expanding initiatives such as the Digital Doorway project. One of the main reasons the Digital Doorway project is considered groundbreaking for the future of South African participatory processes, is because it deals specifically with rural communities and rural challenges.

Although this project is currently used primarily for educational purposes, it can easily, with the input of technological experts, be used as a channel of information and communication between rural communities and the government. As a result these rural communities will be able to participate in national decision-making processes via these hubs and Urban Planning can gather valuable community information to plan to produce sustainable green environments in these areas.

#### **12.4.2 Addressing South African participatory challenges by implementing the Digital Doorway project methodology**

The implementation of technological advances, such as the Digital Doorway project, can have various positive impacts within the local environment, especially in terms of participatory planning and addressing challenges associated with local public participation approaches. Positive impacts of such technological advances include:

- It focuses on rural areas, which are the areas in South Africa that pose a number of challenges for effective participatory processes. Nearly 50% of the South African population live in rural areas so projects such as this one that aims at improving rural liveability are much needed.
- One hub is sufficient to accommodate a whole community, because apart from the four people that can use it simultaneously, many more can access it at the same time via their mobile phones. South African citizens, even

poor citizens, tend to have mobile phones. It is one of the few telecommunication devices in the country that the majority of citizens are comfortable with.

- One of the advantages of only needing one hub to accommodate a whole community is the electricity that will be needed to keep a whole community informed and part of participatory processes. Section 10.5 stated that the demand for electricity outweighs the supply, resulting in high electricity prices. One hub that requires electricity is much more sustainable than every rural family needing an electrical power point for a personal computer. As already stated, most South Africans have cell phones and know how to work with it to some extent. Being able to access the hub with a cell phone will be very beneficial to the government, because in this way, more rural citizens will be able to learn technological skills and become more competent with technological devices.
- These hubs require technical assistance and upgrading as time progresses. Jobs can be created for technological experts to plant and set-up these hubs in rural areas across the country. Certain local citizens can be educated to learn how the hubs work and be appointed as supervisors at hub stations. It increases job creation and boosts the economy of a community, therefore improving sustainability.
- The hub can be a source of improved political participatory processes, but it can also be implemented in health, environmental and educational public participation. A wider variety of citizens can therefore be included in the overall public participation system of South Africa.

The Digital Doorway project is a groundbreaking project in terms of participatory planning in the local South African context, as it gets rural communities involved and excited about technology-based public participation methods. It provides the opportunity for communities to participate better and faster, supplying the project leaders with public input and new information, which they can use to implement improved decisions and develop better usable-, valuable- and visual spaces.

## **12.5 Proposed plan to enhance participatory planning in South Africa**

### **12.5.1 Prioritising participatory challenges**

Improving South African participatory processes in Urban Planning to enhance sustainable green environments is an attainable possibility, but for this to happen the recommendations given in this chapter should receive attention from the government and guiding authorities. In essence, government and guiding authorities should grasp the value and benefit of effective participation processes, realising the spinoffs in terms of sustainable development and creation of sustainable green environments. Based on the findings of this research, this section aims to prioritise the participatory challenges set in the previous sections. Figure 41 provides a list of the challenges given in this chapter, arranged in ascending order from “urgent and less difficult to resolve” to “less urgent and difficult to resolve”.

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Figure 41: List of South African participatory challenges within Urban Planning that needs to be resolved

Source: Own creation (2013)

Figure 41 provides a framework for implementation to improve participatory processes in South Africa. In the Urban Planning context, this implementation is crucial as it will ensure the realisation of effective participatory planning processes guiding the creation of sustainable environments.

It is important to define a participatory process correctly in order for every Urban Planner, no matter where in the country, to have the same ideas and goals regarding public participation. It will lead to a higher level of uniformity in participatory processes. Furthermore, the awareness among the government and leading authorities regarding participatory processes will increase.

It is necessary for Urban Planning to adopt a more bottom-up approach towards participatory processes by having the interests of the public at heart and taking their concerns or opinions into consideration. A bottom-up approach makes other challenges in South Africa easier to deal with: Culture/language complexities, rural challenges, conflict, social fragmentation and the lack of literacy within rural communities. These challenges are connected with each

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other in terms of social issues and therefore if the needs of communities are met by the government or leading authorities, these challenges will be resolved in the process.

The availability of resources can be problematic in South Africa, therefore the government should focus on managing and conserving resources more effectively. The implementation of multi-purpose community telecentres in rural communities will conserve resource usage such as electricity and Internet, because one MCT can accommodate a whole community. Resource levels in South Africa are thus a challenge, but it can be minimised through the use of technological innovation.

Participatory methods are crucial in any participatory process, because it keeps community members interested and will make them willing to participate. However, overcoming culture/language complexities, rural challenges, social fragmentation and conflict and improving literacy within rural communities is more sustaining for participatory processes and therefore these challenges should be focused on first.

Changing South African policies by making it more “user friendly” through simplifying the vocabulary will be very beneficial to participatory processes, because citizens will understand the policies better, thereby improving the public participation process. But applying these changes to national policies will be a lengthy process in itself and that is why time and energy can be spent on other challenges mentioned in Figure 41.

### 12.5.2 Implementing effective participatory planning in South Africa

Participatory processes in South Africa are crucial, because they have an effect on many systems and processes. South Africa needs efficient, accurate and productive participatory approaches. Taking all of the research into consideration, Table 43 summarises the essential issues and guidelines for implementing effective participatory processes in South Africa, with the potential to enhance sustainable green environments.

**Table 43: Guidelines for implementing successful participatory processes**

Issue	Guidelines
Include sustainable development initiatives	Follow initiative guidelines such as the UH Habitat Agenda and the UN Millennium Development goals (refer to section 2.6)
Include creative participatory methods	Used in the Netherlands (refer to section 8.4.1)
Create awareness of the benefits of participatory planning	Will create optimism within local communities as well as governments (refer to section 3.4.1)
Ensure adequate communication structures for different cultures and languages	If there is no communication between the public and the government, there will not be any public participation, because community members will not be informed.
Implement technology advances to enhance participatory planning	Implementing technological advances in participatory planning provides many advantages, resulting in participatory processes being implemented more accurately at a faster rate (refer to section 4.4). The Denmark pilot study in section 8.4.2 provides an example of how technological advances improved public participation.

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Bottom-up approach	Taking the concerns, opinions and recommendations of the public into consideration and integrating it with the knowledge of Urban Planners, resulting in sustainable developments where the public is satisfied and using the space. The pilot study of the Eastern Scheldt in section 5.2.2.1 is a good example of this.
Holistic participatory processes	Implementing public participation in various fields, such as environmental-, political-, economic- and social issues. This way a wider scope of citizens is invited to be part of a participatory process. India is one country where participatory processes are effectively used in more than one field.
Guided by legislation	Legislation should be used to guide participatory processes with the aim of improving it.
Get the public enthusiastic	Ugandan citizens are very eager to be part of decision-making- and development processes. Getting the public enthusiastic is very beneficial to the participatory process.

Source: Own creation (2013)

### 12.6 Conclusion

Public participation is extremely important and the benefits one can gain by executing it in practice are incomparable with what would happen if public participation was excluded. South Africa should focus on enhancing effective public participation in an attempt to address sustainable development initiatives. Best-practice approaches from various disciplines and international approaches can be used to guide the participatory approaches to be more inclusive, creative and successful. This will lead to major improvements in terms of sustainable development, because sustainable development and public participation go hand in hand. By including the public more effectively in decision-making and development processes, authorities and Urban Planners are able to plan future development much better by incorporating the needs of the public in their future plans, therefore resulting in usable, valuable and visual spaces which lay the foundation for satisfied communities and a sustainable future.

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# **Annexure**

ANNEXURE A:

**Public participation questionnaire:**

**Question 1:**

What is your personal view regarding public participation?

A:

**Question 2:**

How is public participation executed in your profession? What methods do you use?

A:

**Question 3:**

What do you see as positive from the current approach to public participation in South Africa? Do you feel it is working?

A:

**Question 4:**

In your opinion, regarding public participation in South Africa, what works and what doesn't work? What methods proved to be successful and which methods not?

A:

Thank you.