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Free Basic Water: the complexity of putting the concept of sustainability into practice

The case of Johannesburg

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Bachelor Thesis: UTKV03, 15 hp
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Abstract

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The aim of this study is to examine the complexities one might face as try you implement water policy balancing all the objectives sustainability, by using the example of the free basic water policy in Johannesburg. The main theories applied are connected to water governance, the concept of sustainability and social provision strategies in the form of targeting and universalism. The study was carried out with a qualitative approach using semi-structured interviews and is based on the knowledge of four individuals with experience of working for the City of Johannesburg and the free basic water policy. The results of the study show that even though the policy aimed to address the current inequalities in water provision by implementing an approach in line with the sustainability concept a great amount of the city's poor are not receiving any real benefits which has generated questions if the free basic water policy actually been successful in adhering to all dimensions of sustainability in practice. Thus the conclusion of this research emphasizes the difficulties that come with implementing policies in line with the broad and sometimes contradicting goals of sustainability within water governance.

Keywords: South Africa, Johannesburg, water governance, sustainability, universalism and targeting

List of Abbreviations

DWAF	Department of Water Affairs and Forestry
ESP	Expanded social package
FBW	Free Basic Water
NGO	Non governmental organization
UNDP	United Nation Development Programme

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1. Introduction

1.1 Introduction to the area of research

South Africa is a country hugely affected by its apartheid heritage and inequality transcends all aspects of society, including water provision. Achieving greater equity in terms of access of water is not only essential in terms of public health and human dignity but also in purpose of reducing social fracturing and improving the quality of human relations. (Eales 2011 p. i) As the new South African government was established in 1994 radical changes were introduced in the water sector. Programs that aimed to serve those previous unserved by water and sanitation services were launched and the right to affordable water was later included in the constitution in 1996. However, a time after implementation it became obvious that problems related to access remained as a lot of people proved to be too poor to afford the new water services. (Muller 2008 p. 67-68) However, determining what is affordable water is a complex matter, for pricing water is a complex matter. Water has properties that relates equally to social, environmental and economic contexts. For instance, South Africa is a water scarce country hence efficient water use and demand management is imperative and has forced the country to carefully consider how to allocate water while not exhausting its scarce resources. (Muller 2008 p.69-70) Additional to that, supplying water for consumption is both complex and costly; it therefore requires sophisticated funding mechanisms and economic deliberation in order for supplies to be sustained. (Muller 2008 p.74). Due to the multiple properties of water, water governance is closely connected to the concept of sustainable development thus water policy entails including all aspects of sustainable development economic, environmental as well as social aspects. The South African government implemented the free basic water policy in 2001. The policy is attributed to all South African citizens but is targeted towards the water need of the poorest segment of society by ensuring a free minimum quantity of clean, drinkable water of 6 kiloliters per household per month calculated on a basis that a person needs 25 liters per day. Hence it is a universal policy which is to provide the same amount of free water across all households disregarding wealth or number of persons in the household. (Gowlland-Gualtieri 2007 p. 5-7) The purpose of the free basic water policy was however not limited to the objectives social distribution and welfare but transcended into a broader effort to achieve equitable access and efficient use of water in an environmental and financial sustainable way. Thus, the policy was created on the premise

of addressing social, environmental and economic properties of water simultaneously, presenting a sustainable water policy alternative. (Muller 2008 p. 67)

1.2 Aim and research question

By using the case of Johannesburg and the free basic water policy this thesis aims to examine policy implementers' perceptions regarding the problems one might face as you try to provide efficient water services while balancing all the objectives sustainability by asking:

What are the main problems in providing water services while still attending to all dimensions of sustainable development?

The concept of sustainability examines the relationship between economic development, environmental quality and social equity and advocates the equal achievement of environmental, economic and social goals. (Rogers et al 2008 p.42, Litting and Greissler 2005 p. 66) Thus the free basic water policy is indisputably ambitious in its effort of putting the sustainability framework into practice but it has also faced a lot of critic over the years, especially from a social sustainability perspective as the policy generally benefitted more non-poor households than poor. (Muller 2008 p.67, 78).The case therefore demonstrates the very complex process of water governance as one implement water policy in line with the concept of sustainable development.

1.3 Disposition of Thesis

The first part of this thesis consists of an introduction to the area of research as well as a statement of research aim and question. The second part concerns the thesis method and will go thru the research design, methodological approach, methods applied in the process of data collection as well as describe the interview sample. There will also be a statement of biases and limitations connected to the thesis.

The third part of the thesis will describe the underlying theories which will later support the results presented in the analysis. The first section will discuss water governance, the next part will move on to the definition of sustainable development and its different dimensions in connection to water. The third section will discuss the determinants of sustainability in relation to water provision and finally there will be an account of approaches to social provision in the form of universalism and targeting. The fourth part of the thesis will first of all go thru the background context of South Africa in relation to water policy in order to

clarify on what grounds the free basic water policy was created. After that there will be description of the current context of Johannesburg and finally a short account of the aim and structure of the free basic water policy. The fifth part of the thesis is the analysis which is divided into five sections: first a short description of the implementation approach of the free basic water policy in Johannesburg. Second the main identified problems related to the free basic policy and the social dimension of sustainability, Third a discussion on the major issues with the policy in relation to the economic dimensions of sustainability and fourth, the environmental dimension. The fifth section will discuss the city of Johannesburg's upcoming plan for the free basic water policy with geographical targeting followed by a discussion of the overall complexity of ensuring sustainability in practice. It is important to emphasize that the analysis is primarily based on the perspective of the people interviewed for this study. The final part of the thesis is the conclusion which consists of a summary as well as conclusions drawn from the analysis and the main arguments presented in the thesis.

2. Methodology

2.1 Methodological approach

The research design in this study has been in the form of a case study. Seeing how my study is limited to the context of Johannesburg a case study design seemed most suitable as it involves in depth analysis of a single case. The primary critique related to the case study research design is that its very nature makes it inappropriate to draw any general conclusions from your findings. The objective of this research however, is not to generalize or make any claims beyond the case of Johannesburg. It is rather an example of how the free basic water policy can work and have worked in this distinctive setting and from the perspective of the specific participants in this explicit research. Some of the conclusions might provide insight into related issues of sustainability and water policy but the study results are by no means meant to be generalized to any great extent and are thus limited to the case presented in the thesis. (Bryman 2008 p.54-55)

I used an inductive approach to my research as my main goal was not so much to test a certain theory but to look at the case and then draw theoretical conclusions from my findings. (Bryman 2008 p. 10) The study is based partly on secondary data used for the holistic analysis of the case of Johannesburg as well as primary data collected in Johannesburg providing the perspectives of policy implementers employed by the city. Qualitative methods were applied

in the field as it provided the open ended approach required for me to access the type of data corresponding to my research aim. (Punch 2005 p.57) The aim of this study is not just to analyze the outcome of the free basic water in Johannesburg but to do it from a personal perspective, reflecting personal experiences of people working for the municipality. Thus I chose to use qualitative methods on a smaller sample which allowed me to access more in depth data than I would if I had used a quantitative approach.

The collection of primary data was executed thru interviews. I chose to use semi-structured interviews as it suited the open ended structure of my research project. (Bryman 2008 p.437-439) By using semi-structured interviews I could attain specific information related to my research question while at the same time let the interviewees influence the interview focus. This allowed the emphasis of the research to be adjusted as significant issues were brought up during the interviews. This was important as I wished to convey the perspectives of the people I interviewed and not just have them respond to the prestructured convictions of me, the researcher. The interviews were carried out individually and face to face. Each interview was recorded and followed a pre established interview guide while new questions were added as relevant topics were brought up by the interviewee. (Bryman p.438) Ethical considerations were also accounted for hence all interviews were conducted and recorded with the consent of the interviewed. The privacy of the sample is also respected which is why all participants in the research remains anonymous and different quotes and references from the interviews are referred to the date in which each interview took place. (Bryman p.118-119)

The sampling approach applied in this study was a type of purposive sampling known as snowball sampling. Sampling within qualitative research is often done in purposive sampling which means that the sample is chosen as a direct link to the research question. (Bryman 2008 p.458) In my case that meant identifying and accessing people working for the city of Johannesburg with experience of the free-basic water policy. Snowball sampling refers to the process where the researcher makes initial contact with a group or person relevant to the research topic and then uses the initial contacts to establish new relevant contacts. (Bryman p. 183) My initial contact was with a welfare NGO based in Johannesburg who referred me to my contact person at the city of Johannesburg's social development department, who then put me in contact with the rest of my sample.

The study sample consists of four different people, three currently employed at the city of Johannesburg and one who worked for the city between 2005 and 2007 but now freelance as a consultant. The informants worked at three different departments:

- Department of Infrastructure and Services Water directorate. The directorate work closely with Johannesburg water[1] in developing proper service strategies and secure necessary funding. They also focus on ensuring that water policies guarantee equitable and sustainable service delivery.

- The Department of Housing which is foremost connected to issues of housing and development of sustainable settlements. However the department is also expected to contribute to ensuring sustainable delivery of services such as water and sanitation.

- The Department of Social Development. The Department of Social Development provides development and welfare services and has the main objective to advance social development by managing strategies and mechanisms addressing poverty, inequality and social exclusion in Johannesburg. Among its many responsibilities is the Extended Social Package which includes the delivery of free basic water services. (Official website of the City of Johannesburg 2012)

Hence, the sample consists of informants with differenced backgrounds and experiences, but all connected to the free basic water service delivery in the city.

2.2 Biases and limitations

Due to the background of my sample there are inherent biases that need to be acknowledged. All but one of the persons that were interviewed are currently employed by the city of Johannesburg, thus there do exist a possible bias in their interview replies, seeing how they were asked to evaluate the success of a policy implemented by the city that they work for. This might have affected their replies as they could be hesitant to portray the municipality in a bad manner. It is important to stress however that none of the interviewees spoke in representation of the city of Johannesburg. All participants were interviewed as private persons and spoke from their own personal experience and knowledge surrounding the free basic water policy. The interviews in this study do therefore not represent the City of Johannesburg's view on their performance connected to the free basic water policy.

The sample is also limited in the sense that it only presents one perspective on the issue. The people I interviewed have a quite administrative connection to the free basic water policy and experience based from working for the City of Johannesburg. Thus this study does not include the perceptions of other people who are involved in, or affected by, the free basic water policy in Johannesburg, like Johannesburg Water or the actual beneficiaries of the policy.

Equally important to stress is the fact that the quotes and references from my interviews are not based on facts but on the opinions and perceptions of the people that I interviewed conveyed to me. This means that they should only be interpreted as just that and not as facts. This also brings up the issues related to values portrayed by me. As a researcher I also bring with me a certain level of values and biases, reflecting my own personal feelings and beliefs which affect the outline and arguments of the thesis. (Bryman 2008 p.24)

3. Theoretical framework

3.1 Water governance

The process of developing, enforcing and managing policies is essentially a product of governance. Thus by attempting to analyze the free basic water policy outcome one will have to put it in reference to governance. The concept of water governance is versatile and has several definitions. Essentially water governance relates to the coordination and allocation of water resources. The Global Water Partnership define it as: *"Water governance refers to the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society."* (The Global Water Partnership Rogers and Hall 2003 p. 16) It includes the ability to design public policies and institutional frameworks which are socially accepted and arrange resources in support of them. (Rogers and Hall 2003 p. 16) In this study the concept of water governance will be discussed on a basis of how it relates to the free basic water policy in the context of Johannesburg. Thus the emphasis will be on the policy aspects of governance and how water governance functions and related issues are connected to the creation, implementation and outcome of the FBW policy in Johannesburg.

Water governance concerns both internal as well as external governance. Internal water governance concerns functions and structures internal to the water sector like social agreements, property rights and enforcement of proper conducts and standards thru law and regulation. External influences include everything from civil society, private sectors to

national government. Water governance can for instance draw strength from wider governance structures in other sectors of the country thru the establishment of broad rules or laws. For example the end of apartheid enabled great changes to be made within water governance in South Africa. Equally though, services can be negatively affected by political interference. External governance can in fact prevent new forms of service provision from being realized due to vested interest or lack of knowledge of the sector. (Rogers and Hall 2003 p. 17, 24-25) Hence water policy formulation and implementation is highly influenced by both internal and external structures of water governance. This also reveals the wide range different stakeholders and interest groups that influence water governance, all with different priorities in the management of water. Effective water governance therefore requires that different voices are heard and considered in decisions regarding common waters and use of scarce financial and human resources. Hence, In order to address the complexities of water use related to developing, allocating and managing water equitably, efficiently while ensuring environmental sustainability there needs to be a consensus between government, civil society as well as the private sector.(Rogers and Hall 2003 p.17) The degree of governance in relation to water is therefore hugely determined by the degree of implicit consensus regarding: the nature of the linkages between society and water, the consensus regarding the basis for public policies that express these linkages, and finally the availability of management systems that enable policy implementation within a framework of sustainable development. (Soalnes and Jouravlev 2006 p.8-9)

3.2 Sustainable development and water governance

In order to develop effective water policy one needs to account for the unique characteristic of water. Water is a special commodity seeing how it is essential to maintaining life, ecosystems, and agricultural and industrial activity. Thus it has properties that translate equally to social, environmental and economic contexts. Water is also a diversified sector in both supply and demand. From a supply perspective water can be surface water, groundwater, rainwater or seawater. On the demand side water is provided for drinking, sanitation, irrigation, drainage fisheries and multiple other activities. Consequently water demands a highly multidimensional institutional framework involving several sectors and levels of governance. (Rogers et al 2008 p.163-164)

Due to the multiple properties of water, water governance is closely connected to the concept of sustainable development. The concept of sustainability examines the relationship between economic development, environmental quality and social equity. There are several definitions

of sustainability but ultimately it consists of the process of balancing these three dimensions. Thus, sustainable water governing calls for integrated decision making that is capable of harmonizing the economic and social needs of people while still ensuring the regenerative capacity of natural environment. (Rogers et al 2008 p.42)

Economic dimension

The economic approach to sustainable development entails the process of maximizing income while maintaining constant or increasing stock of capital. Thus an economic system should be managed so that we can live of the dividend of our resources. (Rogers et al 2008 p. 43)

"Sustainable economic growth means that the real GDG per capita is increasing over time and the increase is not threatened by the feedback from either biophysical impacts (pollution, resource degradation) or social impacts" (David Pearce et al 1989, Rogers et al 2008 p. 43)

Environmental dimension

Environmental sustainability is a significant factor in policy development and means the safeguarding and careful management of common property resources, such as water.(Rogers et al 2008 p. 223) It relates to the maintaining the resilience and robustness of biological and physical systems. Thus ecological lessons can and needs to be included in economic and social considerations and processes. In water management this means that conservation of limited water resources should be included in the process of water service and distribution. (Rogers et al 2008 p. 223)

Social dimension

Within sustainable development the social dimension has become an increasingly acknowledged dimension as social values such as participation, equality and justice has been proven imperative to sustainable development.(Littig and Grießler 2005 p.70) Thus, In contrast to viewing water as mere economic commodity, which has been the dominant paradigm since the 1980s, the social approach to sustainable water management pushes for human dignity and state that universal access to water for basic needs is an absolute priority. In line with this argument it is claimed that because water is imperative to human survival, a political economy directed toward meeting human needs, it should be above all be concerned with issues of water availability and distribution. (Branco and Henriques 2010 p.142-143) The argument is further supported in UNDPs human development report from 2006 where it is concluded that "Basic citizenship rights and considerations of social justice demand equity in the provision of water for basic needs. Overcoming inequality should be seen as an integral

part of national water policies". (UNDP 2006 p.65) Hence the premise of equity should be a priority in sustainable water management and governments and other actors need to be held accountable in ensuring available clean water at an affordable price. (Langford 2005 p. 275) In terms of water governance this means working for equality in the distribution of water and meeting the water needs of all levels of society as inequitable distribution of resources is essentially deemed unsustainable. (Rogers et.al 2008 p.78)

Sustainable development advocates that these dimensions should all be considered and be given equal priority. The proposed equal treatment of the three dimensions of sustainability emanates from several arguments one being that ecology, economy and social matters are three individual but closely connected systems which all need to be kept stable in the long term if not to endanger the achievements of civilization. (Littig and Grießler 2005 p.67) Efficient water government thus implies the capacity to both generate and implement appropriate policies that accounts for all dimensions of sustainable development. (Soalnes and Jouravlev 2006 p.9) However the supposed win-win constellations of sustainable development have faced some critic as equal treatment has rarely been achieved in practice. The unequal treatment of the three dimensions of sustainable development can be traced back to several factors, first of all, this type of theoretical equality rarely exist in the real world, secondly economic arguments often tend to be given primacy and third, equal ranking of priorities is not a central issue in a political context. (Littig and Grießler 2005 p.67).

Thus, balancing all three dimensions of water as well as coming to an agreement between different stakeholders involved in the process of water service provision, illuminates the complexity that comes with developing water policy and show how approaches to putting the sustainability ideal into practice is complicated and often at odds. Thus, similarly as the different dimensions of sustainability can be viewed as concepts which connect to a singular goal pursued by a one overarching method or ethic, there are other arguments which in contrast emphasize the disparities in values that these dimensions present and the underlying conflict that comes from complex social interaction and strategies for collective action. Hence even though the promotion of sustainable development is beyond valid others conclude that, because of its width, the concept of sustainable development could be argued to be more of an "at best scenario" and not a map for practical decisions. (Ratner 2004 p.50,54)

3.3 Determinants of sustainable development and water provision

Sustainable development is dependent on three determinants of sustainable development: consumption, production and distribution. These presents the condition where one can find the causes to failed sustainable development. In Consumption the issue concerns the use of resources beyond reasonable limit set by nature regeneration. As water is a finite recourse this relates to the usages of water to the extent that you exhaust your resources (Rogers et al 2008 p. 65-66) Unsustainable production is characterized by inefficiencies and mismanagement in the use of recourses. It reveals the need of including not only economic benefits but ecological and social benefits in production processes as well. In the context of water governance this specifically relates to inefficiency in production which causes system losses and environmental degradation connected to policy failures. (Rogers et al 2008 p.71) Finally distribution, inequitable distribution of resources is essentially regarded unsustainable. The manner in which one distributes resources is a vital question in water governance especially in a country like South Africa as societies with high income gaps are more likely to exclude large amounts of poor from essential services like water and sanitation. (Rogers et.al 2008 p.78) According to these determinants of sustainable development the achievement of sustainable water governance is compromised by failures in the structures of consumption, production and distribution and should therefore be considered when evaluating water policy outcome. (Rogers et al 2008 p. 65-66)

3.4 Approaches to social provision: universalism vs. targeting

When it comes to distribution of resources there is a longstanding debate regarding whether the core of social provision should be universal or selective thru targeting. Under universalism the whole population is the beneficiary of social benefits while under targeting eligibility to social benefits involves some kind of means testing in order to identify those most deserving. (Mkandawire 2005 p.1)

Universalism aims to guarantee a decent standard of living for all, making social services like water accessible to the entire population .(UNRISD 2010 p.136) Universalism therefore emanates from principles of solidarity and citizenship and is argued by its advocates to foster social cohesion and build coalitions across classes and even reduce social friction. If the poor are provided with access to the same kind of services enjoyed by the rich, universalism may also act as an instrument for redistribution and social mobility. (UNRISD 2010

p.162)(Dagdeviren et.al 2001 p.5)(Eales 2010 p.29) However the inevitable generalization that comes with universalism means that if it is strictly interpreted it may ignore structural inequalities based on individual or collective characteristics. This could ultimately mean that certain individuals or groups do no benefit adequately from universal provision programmes or that resources are inefficiently allocated. (UNRISD 2010 p.140)

The premise of targeting is based on the pursuit of economic and program efficiency. To achieve optimal usage with a finite budget and reach the accurate people without wasting resources on people who do not need it. However, targeting social benefits is a complicated matter as the identifying of who should be included in a program ultimately also means that someone has to be excluded thus if identification and targeting is insufficient targeted social services run the same risk as with the universal approach of benefitting the wrong people, or even worse excluding people who actually should benefit. Additionally, even though targeting holds the promise of economic efficiency one has to consider the extra administrative costs of identification and monitoring that comes with a targeted program. (Dagdeviren 2001 p.5)(Eales 2011 p. iv)

The success or failure of either approach has varied depending on case and context however generally it is considered that social provision is most successful if you have an overall universalistic provision of benefits while targeting is primarily used as an instrument for making universalism effective. This means that extra benefits are directed to specific groups with specific needs within the framework of a universal policy design (Mkandawire 2005 p.16-17)

4. Context and background

4.1 Water policy development in South Africa

For one to understand the context in which policy reform has taken place in South Africa within the water sector one also has to understand its connection to the wider political economy driving water development and management. Up until1994, race, gender and class had been the dominant organizing principles in South Africa's political economy and water management. Racial discrimination transcended all aspects of life, benefitting white men over all other groups of society. Consequently, as democracy approached, about 12 million blacks lacked access to safe drinking water and 20 million were estimated to lack adequate

sanitation. In addition almost no black men or women used any significant amount of water for productive uses or had any formal water entitlement in their own name. Water resources were vastly concentrated to the white population. (Schreiner and Rashid 2011 p. 2)

Thus as the new government was put in place in 1994 their undertaking in water provision changed from serving a small formal well-organized white consumer base to serving an entire nation with a population of over 40 million people, a population divided by wealth differences as well as territorial and institutional segregation. Four in ten people lacked access to a basic water supply of potable water and more than half of the population adequate sanitation. The new government had to respond with urgent interventions in order to address the gross inequality and underdevelopment which affected every level of state and demanded a major shift of government functions and objectives. (Schreiner and Rashid 2011 p.2)

Another vital contextual factor is the fact that South Africa is a relatively water scarce country. In 2000 it was estimated to be one of the driest countries in the world on an available water per capita basis. The issue of scarcity is worsened due to the fact 60 percent of the country GDP emanates from inland areas where the majority of the population is located high up the main river basins and their water wastage has had a critical impact on downstream users. Adding to the problem is the climatic uncertainty in the area. Dry cycles demand extensive storage in order to assure sufficient water supplies all year around. Hence efficient water use and demand management has become imperative and significant investment in storage and transmissions is required. Also the intensive water use puts great pressure on water ecosystems through the extraction of water and discharge of waste. Hence as the new government was put in place the high water demands of the suburban life style of South Africa's minority population presented several concerns and the problems would only increase with rapid urbanization and the improving living standards of the poor. This forced deliberations on how to allocate water while not exhausting scarce resources and stressed the need for interventions that would control and contain the increased water demand. (Muller 2008 p.69-70)

The driving force in changes within the water sector was therefore to create more just, economically sufficient and environmentally sound water management while extending services to those left unserved during the apartheid regime. (Schreiner and Rashid 2011 p.2) This was accompanied by an extensive decentralization of responsibility in water provision to local governments. (Muller 2008 p.67) Today the supportive governance framework in South

Africa's water regulation is primarily a relationship between the national Department of Water Affairs and Forestry (DWAF) and local municipalities. DWAF legislate through regulation by launching national guidelines and setting national standards, minimum levels of service, minimum reporting requirements and tariff policy. Enforcement is however a municipal function. (Smith 2006 p.9)

4.2 The context of Johannesburg

The City of Johannesburg is the largest of the 284 municipalities in South Africa both in terms of population and local government budget revenue. 74% of company head offices in South Africa are based in Johannesburg. The city of generates 26% of South Africa's gross domestic product and the annual per capita income in 2008 was the highest of all the metropolitan councils. But it also suffers from problems related to poverty, inequality and a continuation of social and economic spatial divisions based on race and class. (Van Rooyen et.al. 2009 p. 1)

There have been improvements in income of the poor in the Gauteng province over the years however, at the same time the 10% richest of the population have had an even faster income improvement rate, thus when compared, the deep structural nature of poverty in South Africa is exposed. Although slight improvements on the Gini-coefficient were made between 2006 and 2009 it still remains above 0.6 (CoJ annual report, 2011, p.8-10).

Evidently high levels of inequality characterize the city, infrastructural inequalities has remained since the founding of the city, wealthy middle class neighborhoods in the northern suburbs are well maintained while working class neighborhoods located in the eastern and southern parts are less so. One of the main problems the city is dealing with in service delivery is to provide quality services affordable to all its residents. Though most historical backlogs have been attended to the constant increase of the city population puts pressure on service coverage and delivery. This is further complicated by the nature of multi-dwelling on stands as well as the high number of informal settlements in the city. Hence even though the city of Johannesburg is a more developed municipality compared to the national average in terms of income levels, literacy rates, high life expectancy and percentage of poor, it still has to attend to the high levels of inequality, similar to that at national level.(CoJ annual report, 2011, p.8-10) (Van Rooyen et.al. 2009 p. 1).

Another national problem that is evident in Johannesburg as well is water scarcity. Johannesburg is one of the few big cities in the world who lack access to any substantial

natural water source. Instead it buys bulk treated water and is dependent on inter-basin water transfers. At the moment the water quantity is sufficient however the city still has to put a lot of effort in water demand management seeing how it is located in a vary water scarce area. (Van Rooyen 2009 p.2)

Another important factor in the Johannesburg case is that Johannesburg privatized their water provision service thru a strategy called iGoli 2002. iGoli was part of a major reconstruction process in the late 1990 as a plan to resolve Johannesburg's financial and organizational problems. iGoli was implemented mainly to resolve five key problem areas: financial stability, service delivery, frameworks of accountability, administrative efficiency and political leadership. (Smith 2006 p. iv) The model proposed that managers of a service would be in charge over both cost and the costumer revenue related to that service. All operational matters were handed over from the city to Johannesburg Water who was to be responsible for administration of service delivery city wide in order to make economic decentralization possible. The city would however still retain control and authority by deciding policy priorities, options for resource allocation, service strategies and standards of delivery. Thus the city would keep its authority function by holding the service provider accountable for failed performance in relation to parameters set by city policy, resources and standards. Ultimately the idea was to separate policy and strategy, which remained with the city, from service provision, which was distributed to utility managers. (Smith 2006 p.8) Opposition to privatization in the water sector has been prominent in South Africa, particularly from NGOs and unions who point to the detrimental effects on health and safety resulting from a focus on economic profit and the financial incentive by private service providers to provide water to wealthier areas. This has also resulted in questions regarding whether or not privatization of essential services such as water is consistent with constitutional obligations and if public and private goals intertwine or financial profits are given a priority within the private sector. (Gowlland-Gualtieri 2007 p.10)

4.3 The Free basic water policy

South Africa introduced the free basic water policy in 2001 and was a social benefit extended to all South African citizens. The primary target of the policy was however poorer households for which the policy were to represent a poverty alleviation measure seeing how poorer households were seen to benefit the most from an affordable basic water supply. The free basic water amount were set at 6000 liters (6kl) per household per month, if households

would consume more than the attributed 6kl per month they would then have to pay for the additional water according to the standard tariff rate. (Smith 2012 p.938) (Muller 2008 p. 78)

The distribution of the free basic water would be funded thru government's equitable share, which is a portion of the annual national budget that accounts for the number of poor people in each municipality in a formula for fiscal transfers, as well as thru cross-subsidization between users within a system of supply or water services authority area. (Gowlland and Gualtieri 2007 p.6) (UNDP 2006 p.64) The implementation of the policy is decentralized to local governments and even though the objective of the free basic water policy is collective each municipality is free to choose what approach they prefer to apply for the implementation of the policy, universal coverage or targeted, depending on their specific conditions. Universal provision of six kilolitres free water per household and the usages off step tariffs were promoted in metropolitan urban areas where high volume-users are available to cross-subsidize low-volume ones. Therefore Johannesburg implemented a universal provision of six kilolitres free water per household and the usages off block tariffs (Muller 2008 p. 78)

5. Analysis

5.1 Johannesburg's free basic water implementation approach

The Increasing block tariff system that was introduced with the universal approach to free basic water works in the manner that it present a lifeline tariff on the first block and then the price per water unit increases the more one uses. Thus tariffs work on a basis of "the more you use, the more you pay" therefore they are to reduce water wastage and promote the conservation of scarce resources (Smith 2006 p. 21) Hence the policy framework goes in line with the environmental concept of sustainability by including environmental considerations in economic processes such as pricing mechanisms. (Rogers et.al 2008 p.44) As the free basic water policy requires consumption beyond the basic supply to be paid for it also strengthens the user pay principle thus ensuring financial sustainability. (Gowlland and Gualtieri 2007 p.6)(Rogers et al 2008 p. 43) From a social perspective, increased block tariffs are often promoted on the basis of being pro-poor as it ensures a certain amount of water for everyone and therefore provide poorer households with a basic water supply subsidized by the cost recovery from those using beyond the basic amount. (Eales 2010 p.23)

However an evaluation report made in 2006 on Johannesburg's approach to indigent benefits concluded that the tariffs had failed to benefit most poor households. Hence the city has

implemented a more targeted approach to the free basic water service, additional to the universal 6 kilolitres, aimed to address the needs of the poorer groups in the city. The free basic water provision became a part of the city's indigent registration thru the Expanded Social Package (ESP) which is an individually targeted programme designed to alleviate poverty in the City. The major shift that the new program provided was that it was individually targeted attending to different levels of need and eligibility based on a city level indigence poverty index that included several factors and not just income. (CoJ 2011)

Consequently the free basic water policy in Johannesburg today consists of universal provision of services in combination with a targeted indigence register.

5.2 Social Sustainability

The universal provision with the block tariff system was promoted to be a progressive policy approach as it would provide poor households with a basic amount of water that would then be subsidized by the revenue from high volume users. This argument however assumes that poorer households consume less water than non-poor ones, an assumption that has proven to be inaccurate in most instances as water needs of poor households are not necessarily less than those of richer ones. (Eales 2010 p.23) as noted in the following quote.

"Consumption is not a proxy for poverty you can't say you are a poor person, you need less water, so it is just very, very problematic. It is a good way of generating subsidies but it has very little to do with being pro-poor." (Interview 2013-02-04)

Block tariff systems are designed to reprimand high volume consumption and cross subsidize low volume consumption this does not however automatically mean that high income households will cross-subsidies low income households (Eales 2010 p.23)

This is further complicated by the fact that poor households are less likely to have their own household connection which means that due to the way block tariff system are designed poorer households are panelized and forced to pay more for water than rich households with private water accounts (Eales 2010 p.24). As indicated in the quote below.

"The reality is that in the poor areas of town you will have one meter and fifteen people living there that's not one family that's two or three families per household. So immediately peoples` tariffs are pushed in to expensive bands. So unless you have a sophisticated system for identifying how many people are living per stand and adjusting it proactively it is not going to work." (Interview 2013-02-04)

What this quote concludes is that seeing how poverty in the city is connected to high density households located in township dwellings, water usage in poor households are inevitably also high, thus so are their water bills. High income households are going in the opposite direction, with less extended family members living together generating lower water consumption. Hence these smaller, richer households are the beneficiaries of the water tariff system which was initially meant to subsidize the poor. (Smith 2006 p.21-23) Some therefore argue that the block tariff system is a regressive option to water service delivery and that an entirely random distribution of subsidy benefits across the entire population would be more beneficial for poor households than quantity based tariffs. (Eales 2010 p.23) Consequently even though the block tariff systems are designed to create subsidies, and give incentives for water conservation, they rarely benefit the poor as it fails to account for the demographic dynamics of poverty. (Smith 2006 p.21-23)

In theory tariff regulations holds the promise of addressing social, environmental and economic dimensions simultaneously thus presenting a sustainable water policy alternative. (Muller 2008 p. 67) In reality the aim to decrease water usage and create a self subsidizing water system has to some extent contradicted the free basic water policy's other goal of making water more accessible for the poor, revealing the underlying complications of balancing the different economic, environmental and social dimensions of sustainable policy. (Ratner 2004 p.54)

In the effort to standardize across a range of circumstances the city had ended up oversupplying smaller households and undersupplying larger ones. It became clear that the social objectives of the free basic water policy and the promotion of equality would not be addressed unless the free volumes were increased to meet the dignity and productive requirements of poor households or tariffs above the free amount were made affordable to poor. (Smith 2012 p.951) Thus the ESP design was introduced to distribute additional free basic water beyond the standardized threshold based on a combination of means and household size, as a way to prevent inappropriate assignment of service level. (Interview 2013-02-20)

In one of my interviews the participant concluded that by adding the ESP targeted indigence register to universal tariff system Johannesburg has ensured a certain level of evenhanded coverage with their free basic water provision. The 6 kilolitres are provided universally while the ESP has presented a better alternative for poorer households as it at least provides larger

households with the ability to retrieve more water than before, which goes in line with the argument that the best way of ensuring full coverage of social protection includes a universal approach alongside with targeted interventions to reach the most excluded groups of society (Eales 2010 p. 32) (Interview 2013-02-20)

That being said the new policy approach has still failed to include a majority of the poor. First of all, the number of poor applying for the ESP program has not been as high as expected and the city still have to address problems of how to get people to apply for the social package. (Interview 2013-02-11) However the greatest difficulty in assuring proper water service delivery to the poor has been the context of multi-dwelling and informal living. In 2004 a research in several southern suburbs showed that the average number of people sharing one standpipe was eight or seven persons. (Smith 2006 p.21-23) This complicates the success of policies such as the free basic water policy. In these cases there usually only exists one accountholder which allocates water to two or three backyard shacks. As the allocation of free basic water is only attributed to the accountholder it means that the people living in the shacks have to purchase their water from the accountholder and do not receive their share of free water. (Smith 2006 p.21-23) The issue that this living structure demonstrates is the fact that the free basic water charging system is always one move away from the tenant, and tenants are the majority of people living in poverty. (Interview 2013-02-20)

For even though the ESP has ensured that poorer households could apply for more free water it has not changed the fact that non poor households are more likely to be connected to an account. Hence a lot of what has been given away freely now has been wasted as it is not a subsidy that is appropriately channeled towards those most in need. (Interview 2013-02-20) Thus from a social perspective the vast inequality problem with the free basic services makes it unsustainable." For defining sustainability from an equity perspective requires that a reduction of services over time to one user group be declared unsustainable even if other users are able to maintain their desired services".(Gleik 1998, Gliek 1998 p. 573)

5.3 Economic sustainability

One of the other main problems related to the current provision of free basic water is that it creates a significant cost for the city to provide. Even though the current tariffs structure calculates for the loss in revenue that the provision of free services creates and it is sustainable to some extent from a mere financial perspective, the current funding constrains

was identified as one of the critical factors in extending water services to the poor (Interview 2013-02-11).

For instance, the block tariff system in the city has been criticized on the basis of being too expensive for poor households to buy water beyond the amount provided for free. The problem for Johannesburg Water to provide a more pro-poor tariff-structure is due to the high migration of poor residents locating to informal settlements, which are not included in the tariff structure. Most informal settlements belongs to what Johannesburg Water refers to as service level 3, which means that they do not have an individual account, but services are on the other hand not charged for, which creates a significant cost to provide. (Smith p. 23(Interview 2013-02-20) Adding to the problem of funding constrains is the fact that Johannesburg's FBW service do not receive any funding from governments equitable share. The FBW policy framework states that the water provided for free by each municipality is to be funded partly by revenues from the tariffs and partly from the government equitable share, but that is not the case in Johannesburg, as concluded in following quote:

"it is unconditional, and the city does not always you know, the money does not go where it is intended to, we had a discussion last year with our budget office, in terms of the equitable share we said that we actually qualify for the portion that is supposed to go to sanitation and to water but then they took out a letter from national treasury that says that it is unconditional. So they told us that we don't feel that you need to get that money. So it goes into the city's overall revenue office and it is not being allocated specifically to services. That's one of the funding constraints, if that money was in proportion to where it should be I think we would have been able to reach a lot more than the few we are doing at this stage."

Thus due to the socioeconomic structure of the people migrating into the city and political funding constraints that force the city rely solely on the revenue collected from the tariff structure, Johannesburg Water will not be able to reduce their tariff costs or extend their services to poorer households if they are to remain commercially sustainable. (Smith 2006 p. 23)(Interview 2013-02-20)

In conclusion, from a pure economic perspective the policy structure as it is today is sustainable as financial requirements are currently met however it is not economically sustainable if evaluated on the holistic aim of the free basic water policy of benefitting all levels of society. The sustainability framework clearly states that one objective should not be achieved at the expense of another. Thus economic objectives should not be maximized

without satisfying social needs. this situation clearly demonstrates how difficult that is to adhere to in practice and the fact that achieving equal treatment of the different dimensions of sustainability is easier said than done, especially as economic arguments often tend to be prioritized.(Interview 2013-02-04) (Rogers et.al p.46) (Littig and Grießler 2005 p.67).

5.4 Environmental sustainability

The idea of the free basic water system was that it was to reduce water consumption by increasing price in relation to how much you use. However the degree of water conservation in relation to tariff systems is then ultimately determined by the level of awareness among users of the tariff design, the significance of the various thresholds and how they arrange their water usage accordingly. (Boland and Whittington1998 p. 4) This basically means that those who are most likely to adjust their consumption patterns to the different tariff rates are also those for which affordability is a major factor. For poorer households the problem of affordability is obvious but it is not as obvious for non-poor households. As the free basic water policy offered minimum volumes of water without charge it benefited the goal of achieving resource sustainability to some extent as the poor would be contained to the volume that was provided for free unless they were able to pay for more, which in most instances they were not. (Smith 2012 p.951) However, when I asked one of the informants on how the free basic water policy tariff structure affected your non-poor household he concluded that it is mostly irrelevant to them and that they probably do not even notice the difference in charges. This means that conservation incentives among users are mostly limited to poor households. Ultimately the tariff bands are too high for the poorer groups of society to attain water beyond the amount provided for free while at the same time too low to actually trigger conservation incentives in the consumer patterns of the higher income households. If one looks at the consumer patterns of water, subsidies meant benefit to the poor, like the universal tariff structure of the FBW, rarely end up helping them, as subsidies are designed to reduce cost for both poor and non-poor. In addition to that as demand increases in respond to low prices, scarce resources like water can the end being up wasted creating a vicious cycle of inefficiency. (Rogers et al 2008 p. 65-66) Once again the case displays the complexity that comes with the sustainability framework and how to balance the social aim of generating adequate water benefits to the poor and environmental ambitions to preserve limited resources.

5.5 The concept of sustainability in practice

The concept of sustainability in itself offers little space for opposition as it is unlikely that anyone would really argue for unsustainable development. However in reality one needs to acknowledge the different views and objectives that are included in the process as one strives for the achievement of sustainability. (Ratner 2004 p.52) The issue was made evident as the City of Johannesburg was adding the Extended Social Package to its universal free basic water provision. From a social perspective the policy held the promise creating more equitable distribution of water. However, the question of resources can't be excluded seeing how there is a limited scope for assignment of free basic water within the bound of what is sustainable from a procurement point of view. Ultimately the question relates to the scarcity of water in Johannesburg, the fact that the city does not have its own water source and needs to buy its water. Thus even though there was a clear need to revise the manner in which the free basic water policy had worked in the city it was not just a question of increasing the amount of free water in the name of equity and meeting the need of the poor, there were severe financial and environmental resource questions that needed to be considered. Thus in effort to push beyond the ordinary six kilolitres per household provision the city had to find a way to balance the heavy demand that would come from extending services while considering that Johannesburg Water is an entity that has to remain commercially sustainable. In line with the sustainability concept there had to be a compromise between the goal of ensuring affordability and access for all levels of society and ensuring that it is sustainable from a recourse point of view. (Roger et al 2008 p.46, Interview 2013-02-20) Hence even though the idea of the three dimensions of sustainability is not really in dispute their key objectives might not always correlate. (Littig and Grießler 2005 p. 67) Thus, one could instead emphasize the underlying conflict that comes when trying to unify the different objectives of sustainability (Ratner 2004 p.50) Environmentalists want environmental systems sustained, economics want to ensure that economic principles are intact and social advocates want the distribution of resources to be done in an equal manner. (Ratner 2004 p. 52) For instance, environmental advocates might stress the need to induce incentives for conservation among the wealthier segment of the city population however this might not correlate with the ambitions of Johannesburg Water. As summarized by the Chief Executive Officer of Johannesburg Water Management, Jean Pierre Mas in following quote:

"it would be foolish to reduce the income stream of the company by trying to promote water conservation from households that actually pay their bills, as this is where, at present, the bulk of the company's water revenues come from." , Jean Pierre Mas , Smith 2012 p.950)

From this point of view the economic gains contradict the environmental ones and demonstrates the fact that the term sustainability means something different to everyone which makes it is hard to establish what sustainable water policy actually should entail. (Ratner 2004 p. 52) This is not to say that efforts to unify the dimensions of sustainability are not important, only that the different dimensions of sustainability are dependent on specific social contexts and specific set of actors that provide legitimacy and define the parameters of their utility. (Ratner 2004 p.64) Hence in order for water policy to attend sufficiently to the sustainability concept it is important that all possible stakeholders and interests are taken to account and are valued equally in water governance. (Rogers and Hall 2003 p.17)

5.6 Efficiency and geographical targeting

Even though this thesis has so far taken quite a critical stand towards the free basic water it is important to point out that the policy framework has achieved important advances. Since 1994 10 million more people have received access to safe water in South Africa and coverage has risen from 60% to 86%. It was estimated in 2006 that around 31 million people were served by free basic water.(UNDP 2006 p.64) Similarly it is important to acknowledge that improvements clearly have been made in water provision in Johannesburg since the FBW policy was implemented. However, from a sustainability perspective there still remain questions regarding whether it has worked as well as expected. Peter Rogers identifies policy failure within the sustainability framework to be the combined result of overuse, waste and inefficiency with growing recourse scarcity. (Rogers et al 2008 p.60-61) From both an economic and environmental view the free basic water framework has worked to the extent that resources are enough to sustain the current demand, however there are questions regarding if it could be done in a more resource efficient way seeing how the unequal structure of the population has resulted in the universal provision of the free basic water being wasted on a lot of people that don't really need it. By implementing the policy on an accountholder basis the free basic water policy also comes with an inherent bias towards poorer households. In poorer areas the number of accounts is going to be lower because most of them are informal and therefore are not connected to an account. Thus by administrating the policy in relation to accounts and the accountholders as the carrying load, you automatically end up supplying more non-poor households as the vast majority of

accountholders are non-indigence. The free basic water policy is therefore more likely to reach the non-poor than the poor mainly because the poor are less likely to receive any formal water services at all. (Muller 2008 p.80, Interview 2013-02-20)(Interviews 2013-02-04, 2013-02-11) (Muller 2008 p. 78) (Rogers et al 2008 p. 65-66)

As the distribution of water has remained unequal in the city there are clear questions regarding the policy's efficiency and effectiveness from a traditional welfare perspective and whether or not the free basic water policy is a subsidy appropriately targeted.(Muller 2008 p. 80). This obviously connected to the social sustainability perspective as inequality within the water sector remains and inequitable distribution of resources is essentially unsustainable. (Rogers et.al 2008 p.78). The argument is further supported from a economic perspective as one of the interviewees concluded that it currently costs the city around 300 million rand a year to provide free basic water services, all of which is water that is used but not paid for which is vastly expensive considering if a majority would indeed afford to pay for their services. As concluded in following quote:

"So to me it is like you've got to balance, again what is administrable pragmatic, how can you achieve the greatest good, but to me subsidizing people in Sandton[2]is just plain absurd you know, that`s my biggest problem with universalism, it is the simplest but it also means you get issues about efficiency and effectiveness, it might be effective to give it to everyone but it is very very inefficient because you are wasting resources on somebody when you could be giving more help to someone else. (Interview 2013-02-04)

From an environmental perspective the inefficient use of scarce water resources is even more significant as the municipality has been told they need to reduce their water demand by fifteen percent which forced several of the interviewees to question why you should you provide water to everyone for free when you actually need to encourage people to start saving water. (Interview 2013-02-11)(Interview 2013-02-04)

Therefore, all of the people that were interviewed questioned the manner in which the current FBW service has been distributed and if universal provision should remain in the city or if it would be better to focus recourses on the poor. As the quote below conclude:

"If you have a certain level of income you should not be getting 6 kilolitres of free water I think it should be prioritized to the indigent I think it would change the dynamics of how people use it and allow greater access"(Interview 2013-02-08).

However, it is important to point out that just because the universal approach to free basic water provision has been insufficient in meeting the criteria of sustainable development a targeted approach does not automatically ensure better results. Targeting public expenditure to the poor has been advocated for many reason one being the perceived ineffectiveness of the re-distributive measures of universalism. However, targeting is a complicated matter, for instance, the identification of who should be considered as poor or not, poses alarming measurement complexities thus the end result can be similar to that of the universal approach. For even though the targeted approach to social service provision have emanated on the grounds of being efficient, practical and even equity promoting it poses several risks, especially in terms of lack of coverage and leakage. (Fischer 2010 p.41, Dagdeviren 2001 p.5) Implementing a targeted approach also holds the promise of reducing wastage of water by reducing the amount of water given away for free as well as addresses the financial challenge by optimizing the use of available subsidies. (Eales 2010 p. 24) However, targeting is actually most effective if poverty is not a major issue. In Johannesburg however, which has high poverty rates the administrative costs, identification, monitoring and delivery of programmers could potentially outweigh the possible benefits. (Dagdeviren 2001 p.5) Thus despite a significant cost reduction as one stops providing everyone with free water one has to consider the administrative capability targeting requires as well as the reduction of funds available to support poor households due to the cost of targeting. That being said, seeing how a great part of the city's poor are not actually receiving free basic water one has to question the current universal provision and consider how best to finance and manage benefits for all sustainably. This is especially important when considering that water is a finite depletable resource where there must be a balance between providing reliefs equitably and considering approaches which do not compromise incentives to conserve potentially limited resources .(Eales 2010 p. 31-32)

To address the resources inefficiencies within the universal provision of the free basic water service two of the informants from the city of Johannesburg that I interviewed are now working on a proposal with a more finely calibrated universalism using a geographic targeting strategy which involve further targeting of the free basic water services towards the city's poorer residents and a removal of the universal 6 kiloliters. Geographical targeting is a cost effective distribution approach with a low level of stigma attached to it as people are not forced to apply for benefits. But its success is confined to places where poverty is spatially concentrated and even then it runs the risk of excluding poor people who happen to be living

in a region with higher living standards.(Eales p.29) (Interview 2013-02-20) (Interview 2013-02-11)

As Johannesburg is a municipality that is very much geographically unequal and poverty is highly concentrated to specific areas in the city, geographical targeting holds the promise of working quite well in the context. The geographical targeting process ultimately means that if you live in a highly deprived area you will automatically receive more free basic water based on the presumption that you live in a deprived area and then if you live in a very prosperous area you will receive less on the presumption that you live in a prosperous area. In order to assure that poor people located in more prosperous are not excluded the ESP with individual targeting via application will still be available for those that happen to fall between the gaps. (Interview 2013-02-20, Van Rooyen et.al. 2009 p. 1)

The goal of the geographical targeting system is that it will guide resources to poorer areas which hopefully mean that more people would actually receive the benefits they are entitled to. The expected results of the new approach is also that the overall level of uncharged supply of water will drop city wide, which it probably will, seeing how the city will be supplying less to the wealthier areas where most accounts are currently located. The calculation modeling that the people I interviewed had made suggested that the city wide average per household would drop to around 4,5 kilolitres opposed to 6 which is the current number. (Interview 2013-02-20). Thus it is not only designed to meet the social dimension of sustainability by increasing access of the poor but also addresses the economic sustainability issue as the amount water being provided for free would be reduced, which agrees with the environmental perspective as well as it would hopefully decrease water wastage. Overall the policy changes seem to be changing in the right direction on all levels of the sustainability perspective, at least on paper, but the question still remains of how it will work in reality. However first of all the new policy changes has to be approved and implemented which depends on how well they correlate with the objectives of all the different stakeholders involved in the process of water governance in Johannesburg. (Interview 2013-02-20) For developing sustainable water policy is not only about values but also about power interests. One informant told me that they previously tried to remove the universal provision of the free basic water policy and further target the policy towards the poor but they were declined by the municipal council as election time was coming up and it was considered unfavorable as it would remove free services from the majority of the voters. Demonstrating how water policy formulation and implementation is highly influenced by both internal and external structures of water governance and the fact

that different actors do not have the same level of influence. (Ratner 2004 p. 65, Rogers and Hall 2003 p.17, interview 2013-02-11) Hence one can conclude that even though there might be ambitions among the people working for the municipality to change the free basic water policy to be more in line with the sustainability concept they are restricted by the political structures of water governance.

6. Conclusion

The multiple properties of water make the concept of sustainable development an important element in the discussion of water governance and water policy creation. Sustainable development means that economic, environmental and social objectives should all be incorporated in a development process and none of the objectives should be achieved at the expense of another. Thus the free basic water policy seemed to fit well within the sustainability framework as it accounted for the social objective of providing water services affordable to the poor while still striving for economic efficiency and environmental sound water use. However, even though one can conclude that South Africa's free basic water policy certainly presents a case where a compromise between water as natural resource, social and economic good has been made one still has to consider what that compromise has entailed and what it actually has resulted in. For acknowledging all dimensions of sustainability in a policy is not the same as balancing them and giving them all equal priority in practice, as the sustainability concept proclaims. Thus free basic water policy might have offered an ideal framework in theory for achieving sustainability in water service but it is also a perfect example of how difficult it can be to achieve in practice. For even though Johannesburg has increased coverage level in water service for the poor and currently has enough financial and environmental resources to keep the policy running it is also obvious that the policy has not fully achieved its ambitious goals of a comprehensive sustainable water service.

The most evident issue facing the city in connection to sustainability and the free basic water policy is the shortcomings connected to the social dimension of sustainability and extending services to the poor. The free basic water policy was created on the basis of meeting the water needs of the poor however the policy has unfortunately ended up being more beneficial for non-poor. The problem does not so much originate in the city's lack of effort in trying to adhere to the water needs of the poor, on the contrary, the city has made several attempts to ensure equal service delivery, as demonstrated by the implementation of the ESP. The reality is however that it is much easier to write progressive policies than to implement them,

especially when dealing with the provision of water where economic and environmental objectives hold such prominent importance as well.

From a pure economic perspective the FBW policy can be considered sustainable as it currently meets the financial requirements for keeping the policy operating. However if evaluated against the holistic aims of sustainability, including the social aim of providing affordable water services to the poor, the policy will not remain financially sustainable as the complex living structure of the poor makes water services too expensive to provide equally. Thus funding constraints were identified as one of the major factors for not being able to achieve equal water provision. Thus the FBW policy could instead be argued to be economically unsustainable as unequal distribution of resources is considered fundamentally unsustainable.

From an environmental perspective the free basic water policy is currently sustainable but there are concerns that it lacks proper policy mechanisms to alter consumption patterns. The idea of the free basic water policy was that its tariff structure was to reduce people's water consumption as the price of water increases the more one consumes. But the outcome of the increased block tariff system has foremost limited conservation incentives of poorer households where cost is a fundamental concern. The tariffs structure has faced a lot of critic for being too expensive from a social perspective as poor people cannot afford to access water beyond the basic amount provided for free. However from an environmental perspective the tariffs could on the other hand be argued to be to low as they failed to create incentives to conserve among the more prosperous consumer base. The debate is further complicated when adding the economic perspective where there is no real ambition to induce conservation among the wealthier segment of the population, as that is where the majority of revenue funding the policy is collected. What these examples demonstrate is the variety of factors that needs to be considered when discussing the FBW policy outcome and the fact that even though the idea of the three dimensions of sustainability is not really in dispute their key objectives does not always correspond.

Thus the case of free basic water demonstrates how difficult it can be to unify the different objectives of the three dimensions within sustainability and that an equal prioritization between them is unlikely to be produced. The great value with the sustainability framework is however that it generates a holistic evaluation of policy processes and proves that the achievement of one dimension does not ensure policy success. However, just as it allows you

to identify where economic, environmental and social objectives do not correspond it can also help to identify where they do. For instance it became obvious that the universal provision of the free basic water policy had proven inefficient from all perspectives of sustainability. The municipality is now working on a proposal with geographical targeting which holds the promise improving the free basic water policy outcome on all levels of sustainability. However that is if the changes get implemented in the first place, which is not as self-evident as one might think. For the three dimensions of sustainability are separated by more than conceptual principles, more than anything they are influenced by the different stakeholders in water provision who determine how these principles are defined and prioritized. Hence if the free basic water policy is to attend sufficiently to the sustainability concept all possible stakeholders and interests in water governance needs to be valued equally which might be easier said than done as different actors do not have the same level of influence.

The aim of this thesis has not been to present the free basic water policy in Johannesburg as an example of passes or fails in relation to sustainability. The case rather demonstrates how complex the process of water governance and policy management is and how problematic it can be to adhere to economic, environmental and social interests equally and simultaneously. One should still aim to create policies in line with the sustainable objective, it is essential, especially in water policy which is so closely connected to economic, environmental and social processes, but it is unrealistic to assume that it is not going to be problematic or that there will not be a conflict of interest. For getting water services right is a complicated process, it concerns very detailed operational management that includes a vast number of interest groups promoting varying policy priorities which may not always be in agreement. Thus the pursuit of sustainability needs to be accompanied by mechanisms for mediating diversity as well as constant reevaluation of the policy outcomes so shortcomings in policy design can be addressed. For it is one thing to create policies that correspond to the sustainability framework but it is another thing to ensure that its core principles are still intact as the policy is put in practice. For in the end, the actual implementation of policies inevitably means that these principles are subjected to contextual factors and political process which often simplifies, reduces and changes their initial focus.

Notes

1. Johannesburg Water is the city's water and sanitation utility. It is a private company that took over service delivery as the city privatized their water provision in the late 1990s. (Smith 2006 p.8)
2. Sandton is one of the wealthier suburbs located in the northern parts of Johannesburg.(Van Rooyen et.al. 2009 p. 1)

References

Boland, J. & Whittington, D. (1998). *The Political Economy of Increasing Block Tariffs in Developing Countries.* Paper presented at World Bank workshop on Political Economy of Water Pdcing Implementation. Washington, DC, 3-5 November.

Bryman, Alan (2008), *Social research methods*, Oxford: Oxford University Press.

Carina van Rooyen,Thea De Wet, Ingrid Marais, Marcel Korth(*2009), Johannesburg case study*, The water dialogues South Africa.

City of Johannesburg, (2011) ANNUAL PERFORMANCE REPORT FOR THE PERIOD 01 JULY 2010 TO 30 JUNE 2011. Johannesburg, 2011.

CoJ (2011) Linked social cluster programmes 2006-2011: progress report and gap analysis of outstanding deliverables for city social package programme, access to social grants programme, NGO/CBO support programme.City Social Package and associated programmes 2006-2011.

Couret Branco Manuel, Damião Henriques Pedro(2010) *The Political Economy of the Human Right to Water,* Review of Radical Political Economics, Sage Publications.

Dagdeviren, Hulya. et al. (2001) *Redistribution Matters: Growth for Poverty Reduction*, Employment Paper 2001/10, ILO.

Fisher, Andrew M, 2010, "Towards Genuine Universalism within Contemporary Development Policy" *IDS Bulletin,* Volume 41 Number 1, Blackwell Publishing

Gleick H Peter, 1998,. *Water in crisis: paths to sustainable water use*, Ecological Applications vol.8 NO.3 pp.571–579,

Gowlland-Gualtieri Alix (2007*), South Africa`s water law and policy framework implications for the right to water*, International Environmental Law Research Centre WORKING PAPER 2007 - 03 , http://www.ielrc.org/content/w0703.pdf.

Kathy Eales (2010),Current international approaches to promoting affordable access to water to people living in poverty, A review of the relevant literature, Deliverable 2 Water Research Commission Project 1989 Version 1.2

Langford Malcolm (2005), *The United Nations Concept of Water as a Human Right: A New Paradigm for Old Problems?*, International Journal of Water Resources Development, 21:2, 273-282

Littig Beate and Grießler Erich (2005) Social sustainability: a catchword between political pragmatism and social theory, Int. J. Sustainable Development, Vol. 8 Nos. 1/2, 65-79

Mkandawire, Thandika (2005) "Targeting and Universalism in Poverty Reduction". Geneva: UNRISD.

Muller Mike, (2008), *Free basic water-a sustainable instrument for a sustainable future in South Africa*, International Institute for Environment and Development (IIED). Vol 20(1): 67–87, SAGE Publications

Punch, K.F. (2005), Introduction to social research: quantitative and qualitative approaches, London : SAGE.

Ratner D Blake (2004), "Sustainability" as a Dialogue of Values: Challenges to the *Sociology of Development*, Sociological Inquiry, Vol. 74, No. 1,

Rogers, Peter (2008). An Introduction to Sustainable Development. London: Earthscan

Rogers, P., de Silva, R. & Bhatia, R. (2002). Water is an economic good: How to use p dces to promote equity, efficiency, and sustainability. Water Policy 4, 1-17.

Rogers Peter, Hall W Alan, 2003, *Effective Water Governance , TEC BACKGROUND PAPERS NO. 7,* Global Water Partnership Technical Committee

Schreiner Barbara, Hassan Rashid (2011) Transforming Water Management in South Africa: Designing and Implementing a New Policy Framework, New York, Springer.

Smith, Julie, 2012, Free water for all the world's poor? A review of the strategy of South Africa's free basic water policy, Water Policy 14, 937-956, IWA Publishing

Smith Laila, 2006, *Neither Public Nor Private Unpacking the Johannesburg Water Corporatization Model*, Social Policy and Development Programme paper number 27,United Nations Research Institute for Social Development

Solanes Miguel, Jouravlev Andrei,2006, *Water governance for development and sustainability*, CEPAL-SERIE Recursos naturals e infraestructura number 111, United Nations publication

United Nations Development Programme (2006) *Human Development Report 2006, Beyond scarcity: Power, poverty and the global water crisis,* Copyright c 2006 by the United Nations Development Programme (UNDP) 1 UN Plaza, New York, New York, 10017, USA United Nations

United Nations Research Institute for Social Development (2010) *Combating poverty and inequality ,Structural Change, Social Policy and Politics,* UNRISD publication Sales No. E.10.III.Y.1 ISBN 978-92-9085-076-2

Van Rooyen Carina, De Wet Thea, Marais Ingrid, Korth Marcel (*2009), Johannesburg case study,* The water dialogues South Africa.

Websites

2012 Official website of the City of Johannesburg at:
http://www.joburg.org.za/index.php?option=com_content&id=346&Itemid=252&limitstart=2#ixzz2U30snz7V

http://www.joburg.org.za/index.php?option=com_content&do_pdf=1&id=86

http://www.joburg.org.za/index.php?option=com_content&do_pdf=1&id=695&limitstart=6