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Privatization Efforts in Sub-Saharan Africa's Urban Water Sector

Why Prevailing Privatization Objectives

Failed To Attain The UN MDG 7C Of Allocating Efficient And

Equitable Water Supply And Sanitation Services By 2015

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STATUTORY DECLARATION

I declare that I have authored this thesis independently, that I have not used other than the declared sources / resources and that I have explicitly marked all material which has been quoted either literally or by content from the used sources.

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II. Abbreviations

CEO	Chief Executive Officer
DRA	Demand Responsive Approach
FDI	Foreign Direct Investment
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GNP	Gross National Product
GWP	Global Water Partnership
HIPC	Heavily Indebted Poor Countries
IDWSS	The International Drinking Water Supply and Sanitation
IWRM	Integrated Water Resource Management
MDG	Millennium Development Goals
NAFTA	North American Free Trade Agreement
NRW	Non-Revenue Water
O&M	Operations and Maintenance
ODA	Official Development Assistance
OECD	The Organisation for Economic Co-operation and Development
SAP	Structural Adjustment Programmes
SSA	Sub-Saharan Africa
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNDP	United Nations Development Report
UNESCO	The United Nations Educational, Scientific and Cultural Organisation
WHO	World Health Organisation
WMO	World Meteorological Organisation
WSS	Water supply and sanitation
WTO	World Trade Organisation

INTRODUCTION

I. Abstract

There is a fear that African countries, specifically countries of the Sub-Saharan region might not meet the Millennium Development Goal target 7C: of halving, *by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation* (United Nations, 2013), if measures aren't taken immediately. Impressive figures show that from 1990 to 2010 an approximately *two billion people have gained access to improved drinking water sources* with the majority of the people living in Asia and Africa. *Despite progress, 2.5 billion in developing countries still lack access to improved sanitation facilities and in 2011, 768 million people remained without access to an improved source of drinking water* (United Nations, 2013). This current water crisis has moved beyond sustainability since its deteriorating condition is threatening the world's ability to aggregate future needs of supplying an estimated population of 8.5 billion people by 2025 (cf. Grover 2006, 17). Not only the expected population boom is a problem but also human's relationship to water has change for the worse. Water scarcity has developed to be a destabilizing force with severe economical, political and social consequences (cf. Clarke und Barlow 2001, 9). Water crisis is a global issue threatening our very existence.

In the last few decades heavy public reformulations and privatization methods of network utilities has been the answer to the preservation of urban water sources as well as ambitions in generating economic growth and development in post independence Africa on which they embarked on twenty years ago. Water utility privatization was one of the optimism during the 1980s and 1990s in Sub-Saharan Africa, an inexorable trend carried out in numerous countries. However only a few showed positive results. In theory privatization, decentralization and other reform policies were substantial in improving an economies performance. However, case studies have shown that privatization has been difficult to implement and in many cases has failed to address fundamental social and humanitarian constraints in sub-Saharan Africa, *such as finance, the politicised nature of service delivery, [...] lack of access for the poor [, and the contentious issues of ownership]* (cf. Bayliss 2003, Abstract). Still several of institutions and organisation believe that privatization of urban water sector is a fundamental part in the development process and furthermore an appropriate tool to reach assigned MDGs.

KEYWORDS: MDG; Privatization; Sub-Saharan Africa; Urban Water Supply and Sanitation Services; The World Bank; United Nations; Poverty Reduction; Development Aid; Reformation

II. Relevance of the Study

In the last few decades a pulsating debate on whether water should be treated as a human right or should be prone to privatization accentuated around the world that divided adherences between those who see water as a natural free resource and those who believe water needs to be a marketable commodity in order to guarantee its quality and value. Should water on the planet be a public/common good; non-excludable and non-rivalrous, meaning individuals cannot be excluded from using water and the usage by others does not threaten individuals due to the reduction of its availability? Or should water be treated as a private good; excludable and rival, controlled and encouraged by governments and major institution such as the United Nations (UN); or the World bank and sold off as “foodstuff”, which raises the criteria of affordability and geopolitical “favouritism”?

In the 2005 documentary, *We Feed the World*; Austrian director *Erwin Wagenhofer* traces the origins of the food we eat and views modern industrial production of food and factory farming in a critical light (Wagenhofer 2005). In general the documentary is about how Europeans, unaware of the fact, consume ten kilograms a year of artificially irrigated greenhouse vegetables imported from southern Spain, with water shortages being the result (cf. Wagenhofer 2005). Besides bringing impeding facts to the public, Erwin Wagenhofer’s documentary included an interview with former Chief Executive Officer (CEO) and still chairman of Nestle international, Peter Barbeck- Letmathe, who shares his experience and views on the water debate from a cooperate executives perspective (cf. Wagenhofer 2005).

“People have a ‘right’ to water? What an absurd notion! Next thing you’ll say is that child labour is bad, polluting the environment is bad, or that people have some sort of ‘right’ to... life! Imagine the audacity! All that matters is ‘profits,’ and what a wonderful thing it would be to have less people and more profits! Water isn’t a right, it’s only a necessity, so naturally, it makes sense to privatize it so that large multinational corporations like Nestlé can own the world’s water and ensure that only those who can pay can drink. Problem solved!” (Wagenhofer 2005)

Peter Barbeck- Letmathe statement had caught my attention and promptly made me question the powers of globalisation. Although he garnered mass criticism for his statement, regardless of this

intransigence on moral complexion of this matter, the former Nestlé-CEOs stand point finds legitimacy within the indoctrination of neoliberal economics. “Profit orientated CEOs” are the leading forces in all global institutions, inter-governmental and non-governmental organisations and multi national corporations that push policies and govern our world. Which is visible in the fourth amendment of the action program designed by the World Meteorological Organisation (WMO) and delivered in the 1992 Dublin statement on water and sustainable development in Rio de Janeiro, encourages this neoliberal understanding of water:

Water has an economic value in all its competing uses and should be recognized as an economic good. Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources (WMO 1992).

I find it very important to understand, and didactic to highlight the competitiveness over the future of water. Water is a life sustaining resource of which humans cannot be excluded from. Therefore it is important that the fugitive nature of water does not land on the delegating table of a few cooperation's or institutions that decide the future of water for a the global population. The most raised question would be if a government or policies has the right to grant multinationals the commercialization right of a public good such as water? As a student of international development studies I have come across several case studies that portrayed the problematic of water privatization in transition economies.

In the process of water privatization, multinational cooperation's are supported by a bunch of institutions such as the World Bank; International Monetary Funds; as well as Global trade agreement, which developing countries are “forced” to join such as the NAFTA (North American Free Trade Agreement) or the WTO (World Trade Organisation) (cf. Clarke und Barlow 2001, 10). According to the “aid community”, water privatization is a tool that leverages a country out of poverty (cf. Prasad, 2007). They promote the idea that a weak hydraulic infrastructure is a result of pro-poor managerial practice and the main reason for a countries underdevelopment.

All these technocratic institutions and policies allow private firms unimpeded access to a country's urban water source to ensure development, but several case studies have shown that after the transfer of "water rights" over to private firms, the price for water has drastically increased. And the envisioned objectives of improving water efficiency and access for the poor have brought doubtful results. In the context of water scarcity one important global development agenda caught my attention as to dedicate my master thesis on, namely the efforts of United Nations Millennium Development Goals (MDG) of which privatization had been presented as a pivotal tool in the MDGs endeavour.

In the context of my dissertation I want to focus on privatization in Sub-Saharan Africa (SSA) in its purest form, which had been pressured by western and solely profit orientated organisations and multinational cooperation's, as a mean to reach the United Nations Millennium Development Goals target 7.C which aims to halve; by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. My aim is to bring light onto the complexity of the imposed structural characteristics of decentralization and privatization of public sectors in transition economies, how has it shaped society? How has aid development transformed? Who defines poverty and development targets?

My research question is: Why prevailing privatization objectives failed to attain the United Nations Millennium Development Goals 7C by 2015 of allocating efficient and equitable water supply and sanitation services (WSS). With regional focus on Sub-Saharan Africa's urban water sector development

According to several reports cited in my paper SSA countries will most likely be not on track in meeting their MDG target on water and sanitation by 2015, although globally it had been met. Since the inception of urban water reformation and the implementations of privatization models only a few countries had managed to improve its WSS infrastructure and some even reached their MDG target. In the course of my dissertation paper I want to discuss the most common privatization models used in SSA. Furthermore, I will address the evolution and the growing prominence of privatization and urban sector reformation within the development context. A core chapter in my paper will outline SSA country performance, where I will contra-pose the few countries that have managed positive results in their privatization efforts in contrast to the majority that have not. I will round off my dissertation with giving a future outlook on Africa's water issues as well as initiative made towards a post MDG resolution.

III. Methodology

My methodological approach will be of a transdisciplinary research nature combining both qualitative and quantitative data. My intent is to portray a holistic view over water privatization objectives in Sub-Saharan Africa. The transdisciplinary approach successfully targets the complexity of the issue by incorporating multiple academic disciplines as well as non-academic actors to analyse a social problem (cf. Habermann, Misganaw, Peloschek, Dessalegn, & G/selassie 2013, 9). Following requirements need to be given for the success of the aforementioned research modality:

- *[F]ocusing on societally relevant problems;*
- *[E]nabling mutual learning processes among researchers from different disciplines (from within academia and from other research institutions), as well as actors from outside academia; and*
- *[A]iming at creating knowledge that is solution-oriented, socially robust [...] and transferable to both the scientific and societal practice. (Lang, et al. 2012, 27)*

The purpose of my paper is twofold: first, I will give a compilation of several of important economic principles that lay the fundamentals of the current water predicament. Using several literary sources. Secondly, once these pillars are laid I want to build upon these principles by discussing the current epidemic as well as continue with future expectations. In order for the reader to understand the failure of privatization in Sub Sahara Africa I have to portray the contextual relationship of accentuating the linkages between the current conundrum and the political economic initiatives of the past. This study aims towards both a narrative and a discourse analytical perspective of social movements as well as political ecological and institutional agendas imbedded in the conflict over water.

The majority of literature used in my dissertation will be drawn from organisational reports and technical articles. Quantitative data was hard to find due to several constraining reasons. Firstly, WSS privatization in SSA is a relative new approach with little empirical long- term data. I have only managed to incorporate short to medium term statistical evaluations and references. Secondly, there has been generally a lack of monitoring bodies across SSA. The importance for monitoring systems has been neglected in the MDG era but constitutes a prime initiative in the post-MDGs.

The first chapter will discuss important aspects that have led to the current water predicament. My aim was to outline the various economic concepts that place a foundation for my research paper. The merits of privatizing public resources dates all the way back to the era of Marx. Giving short insight into economic theories will deliver a better understanding for the process of privatization as in only discussing current problematic. The practice of devolution, sector reformation and privatization are concepts developed within the doctrine neoliberalism. Chapter two will discuss the economy of privatization. I will describe the reason why to privatize given from an economic and development perspective. The following chapter will deal with the economics of water supply. Describing the positive and negative externalities in water provision. The fourth chapter will be about privatization in developing countries. Two case studies are illustrated that described how social economic crisis led towards the beginnings of water management bodies. The following two chapters will discuss in detail the overall efforts of the Millennium Development Goals and then continue with outlining the linkages between water supply and sanitation services and the success of the MDGs. Chapter seven will handle SSA urban WSS privatization efforts as well give implications on the few countries that managed to positive results through privatizing their urban water sector. Chapter eight will illustrated the outstanding MDG requirements as well as alternative approaches for all the SSA countries to meet their MDGs. The last chapter will be a recap of SSA over all initiative.

IV. Water management, a Global Governance Issue

Water is the essence of every living organism; it is inevitable to every living species. Water creates; nourishes and is a living environment to an incomprehensible amount of aquatic animals. However for centuries water has been a source for conflict. Maude Barlow, of the Council of Canadians and noted author of *Blue Gold*, *has stated that as the wars in the past were fought for oil, the wars of the future will be fought for water. These water wars play out in communities in a variety of forms* (Clarke und Barlow 2001).

According to a recent United Nations survey the world's population is projected to reach the eight billion mark by spring 2024. In another 2011 published United Nations survey on population the current world population is by approximately a little bit over seven billion; and is exponentially growing (cf. Worldmeters.info n/A). From 2011 to 2024 another one billion will walk this earth demanding their share of water. Considering the fact that at present three billion people lack or have no access to clean water and sanitation services; a population increase with the majority increasing in *low-income food deficit countries* (Grover 2006, 17), will intensify socioeconomic concerns and will lead to *unstable consumption and production patters* (UNPF 2001, 3). The steady population growth raised serious concerns to experts. While statistics have recorded a drastic population increase by three-fold over the last 70 years, water consumption has alarmingly increased by a 2:1 ratio (six-fold) however with water availability remaining the same. Population growth and the overconsumption of water results back to the inaugural industrial development approach and inordinate irrigation schemes in developing regions (cf. UNPF 2001, 11). An exponential growth in population has "*implications of a parallel*" (Grover 2006, 17) as Patrick Webb puts it, since an increase in population also increases overall pollution (cf. Saleth und Dinar 2004, 1). Yet, a population increase is only a sub-problem in the prevailing water epidemic (cf. Hefiny 2010).

The water crisis is a complex matter constituting linkages and dependencies on multi-dimensions. Furthermore the global water problems *are neither homogenous, nor constant or consistent over time* and vary from country to country and even with in regions (Biswas 2008, 5). Analysing the water issue will demand us to reject the partial believe that the water crisis is utterly a scarcity issue but more a highly complex matter consisting of social economical, political and environmental concerns (cf. Saleth und Dinar 2004, 1). Its has been evidently proven that solving the water dilemma will loosen several other "developing hindering" constrains, such as poverty alleviation,

malnutrition, water related diseases and food stability (cf. Grover 2006, 18). A controlled usage and availability of clean water is obligatory for a country, not only for the public health; knowing for a fact that 80% of diseases in developing regions are water related (cf. Population Institute 2010, 2). Five million people die annually due to exposure to pathogens in contaminated water (i.e. diarrhoeal diseases). It is a fact that clean water is a positive externality, which raises overall welfare, and contributes to the productivity of communities (cf. Nicol 1999, 3).

However, there is still a prevalent thought “whirring” in the heads of some profit orientated business people who believe that “we can create more water”; and that the availability of “more water” can be reached through *more efficient supply management* (Grover 2006, 18), a preposterous solution to the global hydraulic ulcer. Water usage to humans; cooperation’s; government’s etc. is both; finite and at the same time an ubiquitous resource, however, only a small per centage of the world’s drinkable water is accessible and can be used by us; and it is exactly this small per centage that is at risk. Approximately 35 million cubic kilometres per year of freshwater is inaccessible to humans in the form of ice covers in the Arctic and Antarctic region or underground aquifers (cf. Saleth und Dinar 2004, 2). Water is classified into two distinct forms: salt water and fresh water of which only the latter is considered potable to a majority of living organisms and appropriate for agriculture demands. Considering all the oceans, lakes, streams etc. only 2.5 per cent of earth water is fresh water, which is vital to a majority of living organism; the rest of the 97.5 per cent is “good for rowing boats” (cf. Beddow 2010, 1). From this diminutive 2.5 per cent of palpable water, an indispensable 0.5 per cent is accessible through groundwater or surface water (cf. UNPF 2001, 11). The quantity of rainfall varies from region to region, whereby North African countries have the lowest rainfall in quantity making them extremely exposed to long seasonal droughts that have as a result a series of ramifications of which desertification’s, undernourishment’s; food crisis; or long lasting crop failures are only a few of possible acute impacts. Our dependency has limitations. Regulating water at a policy level will be an inevitable resolution for the future.

As human population increases and globalization proceeds, key policy questions are: how to use available resources of land and water to produce food for all; how to promote economic development and end poverty so that all can afford to eat; and, in doing so how to address the human and environmental consequences of industrialization and concerns like global warming, climate change and the loss of biological diversity (UNPF 2001, 1).

During the early 1980s up till the 1990s a new paradigm crystalized out of the water problem. Experts started to realize that the future of water is becoming extremely complex. *[T]he water problems had become multi-dimensional, multi-sectoral and multi-regional, and were enmeshed with multi-interests, multi-agendas and multi-causes, which could be resolved only through an appropriate multi-disciplinary, multi-institutional and multi-stakeholders coordination* (Biswas 2008, 7). The answer to water's complexity called for a new approach of the integrated water resource management. This technical program rapidly gained prominence as a new approach to water scarcity and management. The Global Water Partnership (GWP), which has been the most referred to and quoted definition on this matter, defined it as follows:

[A] process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (Biswas 2008, 8).

Linguistically the definition sounds impressive and promising however it has been criticized by experts for having *little practical resonance on the present, or on future water management practices* (Biswas 2008, 8). The GWP has succeeded in formalizing an effective definition ornamented with *fashionable and politically correct words* (Biswas 2008, 10), however failed to deliver a practical operational framework or guideline addressing water's *multi-dimensional, multi-sectoral and multi-regional* (Biswas 2008, 7) problematic. According to Asit K. Biswas the definition lacks coherence and seems somewhat amorphous. The vague concept raises fundamental questions, which aren't addressed nonetheless this definition has been fervently adopted and integrated into development initiatives by several of institutions. A few of A.K. Biswas concerns:

'Promotes': Who promotes this concept? Why should it be promoted, and through what processes? Can the promotion of an amorphous concept be enough to improve water management? What about its implementation?

'Maximize': What specific parameters should be maximized? What process should be used to select these parameters adequately and reliably? Who will select these parameters [?] What reliable methodology is available at present to maximize the selected parameters? Do such methodologies even exist at present? If not, can they be developed within a reasonable timeframe so that these can be used?

'Economic and social welfare': What exactly meant by economic and social welfare? Even the economists and the sociologists cannot agree as to what actually constitutes economic and social welfare, except in somewhat general and broad terms. How can the issues related to social and economic welfare be quantified? Can these be even quantified?

'Equitable': What is precisely meant by equitable? How will this be determined operationally? Who will decide what is equitable, for whom, and from what perspectives and under what conditions?

'Sustainability': What is meant by sustainability, which itself is as a vague word, and perhaps also as fashionable and trendy, as integrated? How can sustainability be defined and measured in operational terms?

(Biswas 2008, 8-9)

It is evident that there are still improvements and constraints that need to be made addressed in the absence of managing water sectors. However the amorphous definition has manifested itself within the development domain. There has been no clear agreement on to what integration water resource management means. This has been a key failure in water provision in urban water sector, missing guidelines; allowing institutions to self-assess their own definition of “integration” and the operation of water resource management.

[I]t appears that the vagueness of a concept, to a significant extent, increases its popularity, since people can then continue to do the same old stuff (SOS) they were doing before, but can concurrently claim that they are au courant with the latest global thinking. This jumping on the bandwagon also increases, often very significantly, the potential of receiving funding support from the donors, and also other personal benefits
(Biswas 2008, 13).

This vague concept, which had been designed by the Global Water Partnership had been incooperated by several international organisations. The integrated water resource management had been manifested into the Dublin principles; the United Nations in the 1950s have stressed its importance; the 1977s UN Water Conference had included and strongly promoted it as a key development agenda. Apparently the development efforts of the past decades of urban water sectors had been driven by a concept that lacked operational execution. As Asit K. Biswas had put it the definition consists of fashionable words but lacking implementation competence. My paper will deal with fundamental question that have sustained over the last decades over the integration of the

International Water Resource Management (IWRM) policies.

How has the Sub-Saharan n Africa's urbane water sector developed?

How has water management hence privatization gain prominence?

Why haven't the MDGs been meet?

Who defines the targets?

1. CHAPTER

INTRODUCTION INTO THE THEORETICAL FRAMEWORK

Global political economy of the last three decades underwent a massive privatization spree for public goods & services. These extensive divestment policies over public utilities in several sectors had been a product of “neoliberal-smiths”, which Sub-Saharan Africa (SSA) had been “besieged” with over the last decades. Neoliberal privatization policies had developed into a pivotal tool within the dynamics of accumulation; from the onsets of deregulation policies pressured by the “globalisation” process (cf. Altvater 2004, preface). Rosa Luxemburg entitled this neoliberal crusade, as the *accumulation by dispossession* (Harvey 2003). She grounded her theory based on the “over-accumulation crisis” of the golden age of the post-war capitalism era of the 1970s (cf. Hermann 2006, 1). An era of prosperity ended in a collapse, the issue was, that capital owners came into conflict with their own production patterns, since their current consumption and production patterns had failed to yield expected returns; capitalists turned their focus on to state or commonly owned assets to increase their surplus by investing into *the transformation of* [the non-capitalistic] *sphere of production such as public* [goods and services] (Harvey 2003).

The policy of privatization developed into a decisive homogenous model in industrialized- but moreover in developing countries. However, before I dwell into the theory of Rosa Luxemburg’s accumulation by dispossession, I will define important “political economic turns”, which had led to the impetus for the divestiture of urban water supply and sanitation services (WSS) in Sub-Saharan Africa, as well as the institutionalization of pro-privatization policies.

1.1 Defining Economic Concepts

In order to understand the Sub-Saharan Africa’s privatization waves of the last three decades, it is important to factor into a few economic concepts, which have developed into fundamental pillars in contemporary privatization debates. The next chapter will outline historic and persisting economic theories that are important to form a holistic view over the current water privatization debate in transition economies. Furthermore it should also highlight the evolutionary transformation of economic perception as well as how various policies and a set of crisis have led to the manifestation of privatization models within the international development community. *The* [various approaches

discussed in the following chapter] *are certainly not mutually exclusive, but all possess a different starting point.* (Langford 2005, 274)

1.1.1 Public and private goods

In the realms of economics, a good and a service (G&S) has a relative value to a person as well as an economic valuation on the international market (then termed as a commodity), which can be produced, sold, bought and traded on the market (cf. Deardorff 2010). However, in the social science of economics there are clear distinction to be made when referring to “goods” and “services”: Firstly; a “good” is *anything that “can be dropped on your foot”* (Deardorff 2010) -- hence is tangible, and secondly; in contrast, everything that is not visible—non-tangible; is regarded a “service” (cf. Deardorff 2010). The distinction between a private G&S and a public G&S reflect the consumer’s consumption possibility; based on the G&S excludability: whether a person can be prevented from using a certain good? And if it is rival: does a person’s consumption or use of a good diminish another person’s possibility to use it? (cf. Mankwin and Taylor 2011, 209)

Based on these two distinctions, we can divide goods into four categories:

- **Private goods** are characterized by being excludable, exclusive and rival.
Example: a person can be excluded from buying a laptop if for any reason the shop owner prevents him from buying one. An important key word here is property rights; since the shop owner at that point owns the property rights over the good, he can decide whether to sell it or not. Once the laptop is bought, the property rights are transferred over to the paying customer who now enjoys this exclusivity because he is the only one entitled to use this laptop. Laptops are also considered rival; due to possible high demand of a product might lead to it to be sold out (cf. Mankwin and Taylor 2011, 208).
- **Public goods** have two significant traits: they are non-excludable and non-rival. Meaning: public goods are non-rival, since its consumption by infinite individuals does not harm the consumption of another individual. And, they are non-excludable, since consumers cannot be prevented from its usage, whether or not the consumer pays for these (free rider dilemma).

Example: public transport system in a country. People can use the public transport system

regardless if they pay the small fare or not. The fact that one person refuses to pay does not affect others from using the public utility (cf. Mankwin and Taylor 2011, 208).

- **Common resources** are rival, however non excludable.

An example would be the usage of household tap water. Water is becoming a scarce rival resource (good). Out of an individual's idiosyncrasy that turns on the tap and leaves the water running for a period, would inevitably lead to an overall reduction of resource pool. However, the wasteful person cannot be excluded due to the misconception that a vast amount still exists and nobody regulates the output of the resource (cf. Mankwin and Taylor 2011, 209).

- **Natural monopole** is an economic dilemma; when good is excludable and not rival.

Example on the privatization of water: A water providing utility can easily exclude people from its provision - as often done, by just not improving pipelines. They are also non-rival, since in a given area there can only be one water provider, commonly water is provided through underground pipeline networks which are connected to households. Building another independent pipeline network would be ridiculous in the mind of the utility owner since the costs are too intensive (cf. Mankwin and Taylor 2011, 209).

In the next chapter I will discuss the non-excludable characteristic of goods in other words those that are available to all and relatively free. In Gregory Mankiw and Mark P. Taylor textbook on economics, both authors give an outline over public goods and common resources in contrast to their externalities.

1.1.2 Public Goods Dilemma

[Gregory Mankiw and Mark P. Taylor claim] that for *both public goods and common resources, externalities arise because something of value has no price attached to it. He continuous; if one person were to provide a public good such as a national defence system, other people would be better off, and yet they could not be charged for this benefit. [...]* Because of these external effects, private decisions about consumption and production

can lead to an inefficient allocation of resources, and government intervention can potentially raise economic well being (Mankwin and Taylor 2011, 211).

The cited example above is also referred to as the free rider dilemma; which is where an individual can enjoy the benefits of a public good or service without paying for it. Due to the non-excludability, an externality arises where people realize that they have an incentive of not paying for that good or service but still benefit of it; in an economic view this is also referred to as a market failure. *Since the free rider problem prevents the private market from supplying them [unless] the government [; the potential remedy, decides] that the total benefit exceeds the costs [- cost benefit analysis;] it can provide the public good and pay for it with tax revenue, making everyone better off* (Mankwin and Taylor 2011, 211). This predicament highlights the moral issues revolving around the water privatization debate in developing worlds. Water is a vital resource of which people cannot be excluded from its coverage, however regardless of the fact whether people are capable to pay or not for water, private utility providers need to abject there profit maximization agenda and meet the needs of the people, in spite of possible returns.

Private goods are provided in the market. Buyers of a private good reveal the value they place on it by the prices they are willing to pay. Sellers reveal their costs by the prices they are willing to accept. By contrast, cost-benefit analysts do not observe any price signal when evaluating whether the government should provide a public good (Mankwin and Taylor 2011, 211-212).

The government plays an important role in the provision of public goods since the private sector is reluctant in doing so. Through the strenuous process of doing a cost benefit analysis, which is determined by vague statistical assumptions since human behaviour is not quantifiable or predictable; in the sense that free riders might act anyhow in regards to the utility build since it is free. For example, if somebody were in discontent with the construction of an X - good, he/she would have an incentive to harm or prevent the government from building it or even exaggerate his/her benefits (cf. Mankwin and Taylor 2011, 211). Therefore *the efficient provision of public goods is [...] intrinsically more difficult than the efficient provision of private goods* (Mankwin and Taylor 2011, 211).

1.1.3 Social Dilemmas

Throughout history, societies largely had been challenged by *social dilemmas, or conflicts between short-term self-interest and long-term collective interest* (socialdilemma.com n.d.). Individuals are often in conflict with their own moral judgement; in conflict whether one should act based on personal and often selfish driven needs as opposed to acting towards the needs that is best for a collective group (cf. socialdilemma.com n.d.).

The social dilemma can be defined by two outcomes:

1. *[E]ach person has an individual rational strategy which yields the best outcome (or pay-off) in all circumstances (the non-cooperative choice, also known as the dominating strategy);*
2. *[I]f all individuals pursue this strategy it results in a deficient collective outcome-- everyone would be better off by cooperating (the deficient equilibrium)* (socialdilemma.com n.d.).

The socialdilemma.com website has an example that makes the problematic of social dilemma more conceivable:

[D]uring the Winter of 1978/1979 in the Netherlands. due to an unusually heavy snow, a small village in the North of the Netherlands was completely cut off from the rest of country so that there was no electricity to use for light, heating, television, etc. However, one of the 150 inhabitants owned a generator that could provide sufficient electricity to all people of this small community if and only if they exercised substantial restraint in their energy use. For example, they should use only one light, they should not use heated water, the heating should be limited to about 18 degrees Celsius (64 degrees Fahrenheit), and the curtains should be closed. As it turned out, the generator collapsed because most people were in fact using heated water, living comfortably at 21 degrees Celsius (70 degrees Fahrenheit), watching television, and burning several lights simultaneously. After being without electricity for a while, the citizens were able to repair the generator, and this time, they appointed inspectors to check whether people were using more electricity than they agreed upon. But even then, the generator eventually collapsed due to overuse of energy. And again, all inhabitants suffered from the cold and lack of light, and of course, could not watch television (socialdilemma.com n.d.).

Scientists have developed several social games also known as game theories where they observed participants and based their empirical research on their cooperative or non-cooperative behaviour. One of the evolved concepts is called the common dilemma which is a metaphor inspired by the tragedy of the commons. The next section will discuss the aforementioned concept of the commons (cf. socialdilemma.com n.d.).

1.1.4 Tragedy of the Commons

Public and common goods as already mentioned are both non-excludable and possess no tariffs or cost for their consumption. However, common goods are rivalrous, meaning that the consumption of a common resource has limits, and one-person use, inevitably reduces society's overall consumption possibility. Therefore a regulatory mechanism is eminent in the provision of common resources. This dilemma is called the tragedy of the commons (cf. Mankwin and Taylor 2011, 214).

In the context of global water scarcity, the impetus of the problem boils down to the concept of the tragedy of the commons. Water is a globally contested; a non-renewable resource, which stands in relatively political, commercial and social conflicts. Water is an exceptional resource because of its ubiquitous value assigned to it; it has a commercial monetary value, a political territorial value and an essential social value. The non-excludable nature of water as well as its non-substitutable characteristics to humans allows everybody; communities and companies, to serve themselves from the common resource pool. Negative externalities, such as pollution, are often ominous by-products of individual's rational behaviour since the market itself is incapable to protect the environment (cf. socialdilemma.com n.d.). The incentive is *to harvest as much as possible [until] the resource collapses [because] people [; in spite of self interest,] harvest more than the replenishment rate of the pool* (socialdilemma.com n.d.).

Governments have the possibility to regulate these social dilemmas. There are two potential remedies that have shown to be successful in obstructing humans and multinationals' tendency towards overconsumption and the pollution of water: introducing taxes on pollution and overuse, and assign well established property rights (cf. Mankwin and Taylor 2011, 214).

1.1.5 Government Intervention and Property Rights

In the market economy, there is a central idea that public goods such as water are considered market failures due to their unmarketable trait that is based on the fact that water is essential to human livelihood. *Market failures and unequal distribution of economic outcomes are the two fundamental reasons for government's intervention in a market economy* (Gunatilake and Carangal–San Jo 2008, 2).

Since it is not in the interest for market mechanism to ensure that water is evenly distributed throughout its country. *Instead, societies rely on the government to protect and provide* (Mankwin and Taylor 2011, 220) for evenly allocation- a case of market failure. Gregory Mankiw and Mark P. Taylor stated; that in all cases, the reason why the symptom of market failure exists is due to the absence of well-established property rights; which is a legal authority, which can potentially be assigned by the government that allows the owner to have control over allocation or production of a resource (cf. Mankwin and Taylor 2011, 220).

Property rights are relative remedies to the causes of market failure. However, as I will point out further on in my research paper is that, while well-established property rights are good and favourable, a greater concern is who gets these rights? What is at stake? And what are their interests and motives in acquiring property rights? Who are the beneficiaries? These are focal questions in the transfer of water rights in developing countries; where multinational cooperation's compete over these rights to operate and utilize a common resource such as water.

Understanding the difference between the two types of goods as well as their market function, is important in understanding the discourse of urban water supply and sanitation service reformation as well as the dynamics of privatization. Due to globalization and economic liberalization there had been a dissonance between the perception on the classification of common resources; whether water should be treated as a private or public good, and how to utilize its provision? This is one of the raising disputes of the 21st century; Professor Elmar Altvater; a prominent antagonist of political economy theory argues that:

Thus “good” is spoken of not in the material sense, but rather figuratively as that which is “good”. Of course, the question arises immediately for whom and what is something “good” or, conversely, “bad” and therefore “no good”. Obviously, in the dispute over public goods, normative definitions are unavoidable. Therefore, in the following the term “human security” will have to be discussed in comparison with “commercial security” and the security of states; public goods are supposed to convey security, but the question always has to be asked: whose security? (Altvater 2004, 2).

1.1.6 Human Security vs. Commercial Security

The excerpt clearly boils down the crux of the matter, which is conveying security and why it is important to consider urban water privatization practices. But the main question is guaranteeing security at the expense of whom? The next section will discuss the disambiguation revolving around the distinction between public and private goods and focus more on the determination of goods in regards to societies and economic needs. The view on human needs and security also explains the role and the impetus of several organisations, such as the United Nations and its Millennium Development Goals, in the development dialogue.

The solely term of “security” itself is an ambiguous concept; produced within the constructs of societies, and hence will always remain a matter of definition. What may be insecurity or security for one must not be the same for the other. However, when ‘security’ is annexed to the concept of ‘human’ or ‘commercial’; as done by the UN, security is no longer an ambiguous abstract confined to social whim, moreover a concept prescribed by institutions, which governments need to equilibrate. The latter two conceptualization of security have been given a clear distinction.

[I]n the neo-liberal understanding of “order”, which is supposed to offer security and reliability for management decisions. But whether “corporate security” and/or “commercial security” always coincide with “human security” is more than questionable. Commercial security is a commodity, the sale of which is supposed to bring its suppliers profit. Human security, on the other hand, cannot be offered as a commodity to those people who do not have the purchasing power to buy it, and that applies [to] the majority of people (Altvater 2004, 6).

The United Nations Development Report 2013 documents the definition of human security as the *reduction of insecurity in people’s daily lives* (UNDP 2013, 38).

In every society, human security is undermined by a variety of threats, including hunger, disease, crime, unemployment, human rights violations and environmental challenges. The intensity of these threats differs across the world, but human security remains a universal quest for freedom from want and fear (Altvater 2004, 4).

The concept of human security claims to be a universal valid concept building upon the needs of the people; it urges the shift from the idea of militaristic safeguarding of state borders – security of nations states towards the security of humans basic needs. Although the state is the primary institution that can ensure security, it has been criticised by the UN "Commission on Human Security" that "(the state) often fails to fulfil its security obligations and at times has even become a source of threat to its own people (Altvater 2004, 4). On the account of this, the UNDP has explicitly stressed the reaffirmation of security towards the concept of human security in the context of human development and human rights in order to exercise proper globalisation (cf. Altvater 2004, 1).

Security is brought about in different ways: (1) by reliable rules in a community; (2) by avoidance of instabilities and the re-establishment of stable conditions, if they were destabilized - as in financial crises -; (3) by "provision for sustenance" in those areas of human life in which individuals or families are not able to provide for education and training, preservation or restoration of health, old-age security or even for food and lodgings and access to water and sewage disposal from their own resources; (4) by access to all those goods that are essential for human sustenance. In short: human security is ensured by the provision of public goods (Altvater 2004, 4).

According to Altvater excerpt the conundrums in assuring human security of the 21st century will revolve around the preservation of social and environmental conflicts as well as the securing of natural living conditions such as water, hence water security. One could assume that on the basis of Altvater's definition of security one can compile similarities with technocratic institutional motives and their pro-privatization policies, such as the UN Millennium Development Goals imposed on to transition economies. Since neoliberals of last three decades concerned themselves with the safeguarding of natural living condition; privatization was seen as the "Pareto-optimal"; by securing vital resources through extracting public goods & services away from the public domain in order to raise their economic value, and then brought back into the public sphere through the provision of the goods & services. But lets go more into detail and discuss water security in relation to human security.

1.1.7 Water Security vs. Human Security

The right to water and sanitation has been integrated into the human rights declaration and therefore water and sanitation access and availability is eminent in the development process. Identifying the intricacy between water and human security is of paramount importance. Water related issues, have been factored within the paradigms of human security acting as a central element *across the range of securities, including political, health, economic, personal, food, energy, and environmental, among others* (UN-Water Task Force on Water Security 2013, 5). The UN water analytic brief has identified the safeguarding of water as a prerequisite for meeting human security and can therefore; out of the institutional arrangements conceptualized within the ambitions of water security, *reduce the potential for conflicts and tensions. [Water] contributing [potential] to significant social development, economic and environmental benefits on a larger scale, as well as to the realization of states' international obligations* (UN-Water Task Force on Water Security 2013, 6).

The ambitions of water security have laid the groundwork's for the UN Millennium Development Goals. However, prior to the resolution of the MDGs other institutional bodies and working papers, such as *the Ministerial Declaration of The Hague on Water Security in the 21st*, have outlined an action plan, fixing a set of guidelines towards a sustainable approach for the future of water.

Key aspects of water security according to the UN water analytic Brief:

1. *Access to safe and sufficient drinking water at an affordable cost in order to meet basic needs, which includes sanitation and hygiene (cf. United Nations General Assembly, 2010), and the safeguarding of health and well-being;*
2. *Protection of livelihoods, human rights, and cultural and recreational values;*
3. *Preservation and protection of ecosystems in water allocation and management systems in order to maintain their ability to deliver and sustain the functioning of essential ecosystem services;*
4. *Water supplies for socio-economic development and activities (such as energy, transport, industry, tourism);*
5. *Collection and treatment of used water to protect human life and the environment from pollution;*
6. *Collaborative approaches to transboundary water resources management within and between countries to promote freshwater sustainability and cooperation;*
7. *The ability to cope with uncertainties and risks of water-related hazards, such as floods, droughts and pollution, among others; and,*
8. *Good governance and accountability, and the due consideration of the interests*

of all stakeholders through: appropriate and effective legal regimes; transparent, participatory and accountable institutions; properly planned, operated and maintained infrastructure; and capacity development. (Ministerial Declaration of The Hague 22 March, 2000,)

These eight points are driving forces in ensuring human security and according to Altvater are essential public goods. Now in the last chapter we have discussed the global importance of the provision of water, and its availability and access is a key-determining factor in elevating poverty. The next chapter will discuss the concept of commodification.

Can water, a common resource be commoditised?

1.1.8 Commodification

In the reformation of urban water sectors, one of the alluding thoughts of the last three decades, was whether water; a common good, can be commoditized? And over this time horizon a strong dichotomy has developed between proponents who, on the one side, believe water should be a commodity and, on the other hand, those who abject these notion and strongly vow to the preservation of the true essence of water; being a common good. Before I steep into the *ethical and ideological* arguments revolving the commodification of water conundrum, it is crucial to understand the basic principle of commodities (cf. Braunstein 2007).

The basic principle of commodities is distinguished by its exchange value, which determines whether a product or service is either public or private. Neoliberal greats such as Adam Smith have recognized the differentiation of commodities by the degree of social appreciation. In his masterpiece *The Wealth of Nations*, Adam Smith distinguishes commodities by two subsequent merits: “value in use” and by “value in exchange” (cf. Hermann 2006, 5):

Adam Smith made this distinction after struggling with the fact that water is much more useful to human beings than diamonds but diamonds achieve much higher prices than water. He solved the apparent paradox by arguing that water has an enormous use value but hardly any exchange value, while diamonds have only a limited use value but a vast exchange value (Hermann 2006, 5).

Smith's explanation did not find any acceptance in the neoclassic world at the time until the era of Karl Marx. Marx accorded with Smith's findings but went one step further, stating that 'every' service and good, whether public or private, can be assessed to a monetary value. Marx defines it by a 'use' and 'exchange' value (cf. Hermann 2006, 6).

According to him the nature of commodities is always two-folded: [...] use values [, which are assessed qualitatively and] exchange values [are determined quantitatively, commonly in the form of money]. The use values of a commodity resembles its utility in the sense that it satisfies particular human want; exchange-values, in contrast, reflect the quantities of other goods a particular good can obtain when its exchanged on a market. (Hermann 2006, 6)

The utilisation of commodities has changed over decades. In the time of subsistence economy – pre-monetary trading, where the practice of bartering served as an exchange system or more precise as the “direct exchange of use value” (cf. Hermann 2006, 6); production, regardless of whether commodity or the provision of services was mainly utilized to meet the producers personal or domestic needs. Over-production was then bartered on the local market in exchange for other service and commodities that were of equal value (cf. Hermann 2006, 6). Marx argues that in subsistence societies *[e]xchange value does not acquire an independent form, but is still directly tied to use value. As result [u]se value, not exchange value is the whole purpose of production* (Hermann 2006, 6).

This has changed with the institution of a universal trading system, where the means of production no longer was restricted to the producers needs but moreover transformed to the production of maximizing profits. Commodities were traded against currency, which is the basis of contemporary capitalist societies - the maximization of exchange value. An important aspect that did not exist in subsistent economies was the quantification of services. Prior to the introduction of currency mainly tangible commodities were bartered on the local market. Services or the “production input” was not recompensed on the market. This changed with the inception of

capitalism where everything was weighted against a monetary variable, commodity as well services.

1.1.8.1 Water Commodification

Water in its most natural form is viewed as a common good due to its natural occurrence and open access to humanity. Common goods accentuate themselves by being: non-rivalrous; non-excludable and non-rejectable, meaning that individuals cannot abstain from the use of the resource even if they wanted to (cf. Hefny 2010, 160). Water commodification as well as water privatization has pushed moral borders and led to international disputes revolving around this new approach to development because in many cases poorer-people have been deprived from traditional water systems and forced to accept new water provision systems which have been tied to high tariffs.

Several international institutions have led to current predicaments. Since water has been declared a fundamental Right in 1948, by the Universal Declaration on Human Rights, governments and international institutions were legally compelled to assure this right, however in the beginning the right to water was very limited and only *expressed in the Convention of the rights of the Child* (Hefny 2010, 160). In 2002 the dimension of the “right to water” was amended in the United Nations Committee on Economic, Cultural and Social Rights, stating that the “*concept of water management is not to be limited to its economic dimension only, and that access to water should be considered as a human right*” (Hefny 2010, 160). Through the UNESCO comment everybody was *entitled to sufficient, affordable, accessible, safe and acceptable water for the purpose of personal and domestic usage* (Hefny 2010, 160).

The debate of treating water more as an economic commodity was incepted in the Dublin statement of 1992, which recognized the economic value of water:

- *Freshwater is a finite and vulnerable resource, essential to sustain life, development and the environment*
- *Water development and management should be participatory – involving users, planners and policy makers at all levels*
- *Women are central to providing, managing, and safeguarding water.*
 - *Water has an economic value in all its competing uses and should be recognized*

as an economic good. (Hefny 2010, 161)

From the outset of the Dublin principles, the commoditization trend continued and the new policy frameworks of water marketing as well as the implementation of water rights, which is a right given to abstract and use the water from a national source, found prominence in both the industrial world (i.e. UK and Australia) and in developing regions (cf. Hefny 2010, 160). One of the leading insecurities of the 21st century was whether water would follow the same faith as Oil. In contemporary world economy, oil has become the embodiment of globalization; through the mechanisms of divesture and privatisation, within an environment characterized by free trade and market forces; water might be exposed to the same liberal-circumstances. However, water unlike oil, is not fungible and more important water is essential for life, whereas oil is not. Water demands special considerations especially when at the expense for the poor (cf. Hefny 2010, 160).

According to Hardin [...] over-exploitation of a common good occurs due to the phenomenon called tragedy of the commons where users ignore the impacts of using the resources on its current and future availability for other uses and users. Economist prescription to solve the tragedy of the commons is to clearly define private water rights and establish water markets (Hefny 2010, 161).

Based on this is the conundrum; society should have access to basic water needs, which needs to be universally provided. Water unlike another resource is not a typical economic good that is prone to privatization; it is essential to our lives. Private institutions are driven by market rules and the never ending greed for profit maximisation; furthermore immoral behaviours such as corruption or unequal allocation of water infrastructures, are at the expense of the poor, and therefore make private water providers the least suitable for the provision of water. *The only [...] solution to prevent the tragedy of the commons is by full recognition of [the] concept of human rights, equality, and solidarity by water decision maker, managers, and users [IWRM] approached within a societal ethical framework for good and rational water governance* (Hefny 2010, 161).

Up till now I have touched various concept laying the fundamentals that reason with on-going privatization approaches; the need for the urbane water and sanitation reformation and the policies that encourage specific water treatment guidelines. However, all these important political concepts have evolved in the political era of neo-liberalism, which will be handled in the next chapter.

1.2 Neo-liberalism

Neo-liberalism is a political economic doctrine that inaugurated in the late 1930s. Pundit political economist such as *Hayek, Ludwig von Mises, Milton Friedman and Karl Popper* (Harvey 2003, 157) advocated the inclusion of neoliberal practices, which were characterized by the absolute absence of government intervention to ensure a self-regulating free market. The doctrine did not find prominence in the beginning until the crisis of over-accumulation intensified in the 1970s and neoliberal practices were institutionalized as an alternative to the failing Keynesian framework. *Together with [Ronald] Reagan, [Margaret Thatcher] transformed the whole orientation of state activity away from the welfare state and towards active support for the 'supply-side' conditions of capital accumulation* (Harvey 2003, 157).

The over-accumulation crisis is the predicament in which excessive capital fails to find attractive investment opportunities on which profits are maximized. By the introduction of new markets in which capital owners can reap profits was sought to solve the problem. *The neoliberal turn, thus, proposed to implement political and economic practices that would foster entrepreneurial freedom, private property rights, and liberalization of markets and trade, which would result in the emergence of new attractive terrains for profitable investments* (Gutiérrez Gómez 2012, 23). This is the essence of neoliberalism, in its quest to maximize profits; it surges towards the expansion and intensification of markets, as well as creating new (niche) markets; the commodification of everything tangible as well as intangible and the conquering of foreign territories (cf. Harvey 2003, 158).

Technocratic institution such as the International Monetary Fund and the World Bank instantly adopted the neo-liberal doctrine and within years lay out imperious “development blue prints” imposed on to developing countries. Key concepts were the decentralization of public entities; the reformation of infrastructures and generate competition. *‘Privatization’ and ‘liberalization’ [...] was the mantra of the neo-liberal movement, [the result was the] enclosure of the 'commons into an objective of state policies* (Harvey 2003, 158). New terrains and public assets were ‘liberated’ from state control - transferring ownership, and injected into the free market, which were prone to foreign private investments and readily solved the over-accumulation crisis (cf. Harvey 2003, 158). *Once in motion, however, this movement created incredible pressure to find more and more arenas, either at home or abroad, where privatization might be achieved* (Harvey 2003, 158). The neo-

liberal practice of privatization reached a global spectrum. Initial commencing in the Thatcher-Reagan era and gradually developing into a solid model adopted by transition economies. The pattern of asset redistribution was a prevailing concept on the African continent.

The World Bank treated post-apartheid South Africa as a showcase for greater efficiencies that could be achieved through privatization and liberalization of the market. It promoted, for example, either the privatization of water or 'total cost recovery' by municipally owned utilities (Harvey 2003, 159)

In the case of water privatization in South Africa, the state initiated a campaign working towards ensuring “running water for all”, while water was charged according to the consumer’s consumption, hence a monetary value was ascribed to the provision of water; the price for water exceeded way beyond consumer’s possible purchasing power. In theory, higher revenues in utility services was suppose to accumulate more profit and expand services, however this notion was not feasible in South Africa, since consumers could not meet producers demands – *people were cut out of services, and with less revenue the companies raised rates, making water even less affordable to low – income populations (Harvey 2003, 159).*

Arundhati Roy, a discourager of globalization policies, points out the perverse utilization of privatization, which is in its ethos *essentially 'the transfer of productive public assets from the state to private companies. Productive assets include natural resources. Earth, forest, water, air. These are the assets that the state holds in trust for the people it represents. To snatch these away and sell them as stock to private companies is a process of barbaric dispossession on a scale that has no parallel in history.'* (Harvey 2003, 159)

In many cases, empirical research has made evident that the theoretical approach of redistribution of public assets and the institutionalisation of privatization have often failed to comply. McDonalds survey on privatization in South Africa debunks the ‘cost recovery on municipal of services’ as a failed practice, which *imposes enormous hardship on low-income families, [it] contributes to massive numbers of service cut-offs and evictions, and jeopardises healthy and productive lives (Harvey 2003, 159).*

1.3 Accumulation by dispossession

Privatization as well as liberalization is the “territorial expansion of utilities” of neoliberal capitalism. Aggregating new markets and not withholding the possibilities beyond own national borders is considered the universal truth among neoliberals. Marx concludes the acquisition by all means and expansion of production (modernization programmes), as the *primitive accumulation*, which entails that within the imperialistic/neoliberal practice of capital accumulation – accumulation by dispossession (privatization), a series of social disruptions and violence is an often referred too practice (cf. Harvey 2003, 159).

The accumulation by dispossession or the primitive accumulation has grown into a decisive global key model, a system eagerly imposed on too transition economies of the late 1970s. These accumulation tactics equate to contemporary exposition of privatization policies (Swyngedouw 2005, 82). In the capitalist’s mind-set, the sole purpose is to maximize efficiency of production by investing in innovation and technologies as well as adapting towards ‘change’, which create new market terrains on which profit can be harvested. Erik Swyngedouw, a prominent Belgium professor in environmental development, simplifies the conundrum of accumulation by dispossession in the realization of privatization:

[Privatization is the process through which activities, resources, and the like, which had not been formally privately owned, managed or organized, are taken away from whoever or whatever owned them before and transferred to a new property configuration that is based on some form of “private” ownership or control. Privatization, therefore, is nothing else than a legally and institutionally condoned, if not encouraged, form of theft.
(Swyngedouw 2005, 82)

Erik Swyngedouw also expands on the tactics of accumulation by dispossession by highlighting two impetuous strategic arguments that encourage the normative act of ‘legitimate theft’, as put in his own words (cf. Swyngedouw 2005, 82). The first argument claims that state owned entities or entities managed/controlled by the state; a ubiquitous governing system of the 20th century, is regarded obsolete and is doomed to “state-failure” because of the absence of *profit modes* (cf. Swyngedouw 2005, 82). This notion of “state failure” is based on the incapable disposition the government poses in the provision of services as well as maximizing efficiency among array of social organisation of production (cf. Swyngedouw 2005, 82). Often operating *below what a*

privatized market-based system can deliver (Swyngedouw 2005, 82).

The second argument, in turn, revolves around the unequivocal celebration of market forces and private ownership. Mobilizing both moralistic arguments such as Hardin's Tragedy of the Commons and utopian arguments about the promises of development and success foretold by free market pundits, privately owned and market organized production is invariably portrayed as leading to the most optimal output and the most socially desirable distribution of value (Swyngedouw 2005, 82).

Both arguments portray a neoliberal ethos and promote the privatization of commons. However, despite the institutionalization of the latter arguments “legal theft” has never been a smooth transference of managerial power, but readily was scrutinized and opposed by society itself. This was so often the case in the privatization schemes of urban water systems, where society mobilized itself to fight against collective institutional organization. *The water sector, together with many others, has become one of the battlefields over which “accumulation by dispossession” tactics are waged, often won by capital, and occasionally lost* (Swyngedouw 2005, 82).

2. CHAPTER

A LOOK INTO THE FRAMEWORKS OF PRIVATIZATION PRACTICES

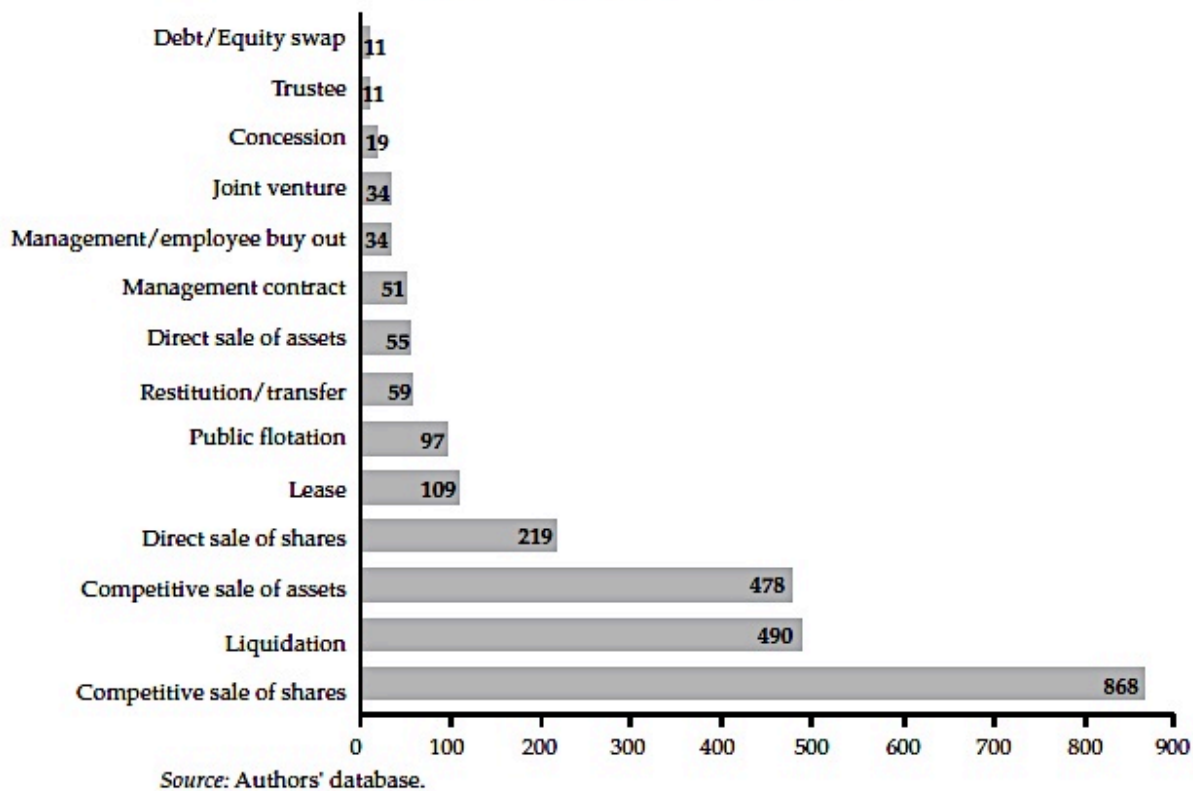
2.1 Defining Privatisation

According to the Mary M. Shirley, the stringent definition of *privatization is the transfer of [full] ownership of assets to the private sector* (Shirley 1992), either through negotiations or through competition. However, in the field, privatization has adopted several *ways of transferring management without transferring ownership-through management contracts and leases* (Shirley 1992); which I will describe more thoroughly later on in my paper.

There are three significant concepts that indicate private sector involvement: firstly, there is Privatization, a concept which had gained prominence in the 1980 and is commonly referred to as the divestiture and the transfer of assets; secondly, Private Sector participation (PSP), which refers to the partition of responsibility. Often the private sector participates by taking the responsibility of the delivery of services, but in the supply of water private sector participation has taken several of forms. And thirdly, Public- Private Partnership (PPP) a model which recognizes the importance of partnership between both, the public and private sector, in the provision of goods and services (cf. Gunatilake and Carangal–San Jo 2008, 9).

All types of privatization have the potential to increase so-called static efficiency-what economists like to call X-efficiency-which means pushing enterprises to operate cost effectively on their production frontier. Only by privatizing property rights, however, can you bring dynamic efficiency in other words, new investment, or innovation. Leases and contracts do not stimulate dynamic efficiency, because they do not create stakeholders with a clear interest in putting their own funds at risk (Shirley 1992, 24).

Figure 1 Privatization Methods



Source (OECD 2004, 43)

The Organisation for Economic Co-operation and Development report (OECD) highlighted two of the most common privatization methods utilized in Sub-Sahara Africa were the sale of shares, either directly or competitive, followed by the liquidation of assets (cf. OECD 2004, 44). The graph weights privatization methods by the amount of transaction up till the end of 2002.

Privatisations through “direct sales of shares/assets” also include “pre-emptive rights”, which refer to transactions whereby a government sells shares to existing private shareholders who exercise pre-emptive rights to acquire those shares in accordance with specific provisions of the company’s charter. (OECD 2004, 44)

In the second most common practice, the transfer of ownership is the process of liquidation. In the business world liquidation commonly means the termination of a firms operation by selling of its assets to reduce its liabilities. This is considerably the same in the pre-privatization phase of a public entity; only remarkable difference is that the stakeholders are governments. However, liquidation in a further sense can also refer to the financial restructuring of a company, mostly

reforming the corporate structure, which is a key step towards privatization. All other transaction methods such as public flotation or leases, have been relative infrequently and undesirable and had hampered the upturn of the financial market as well as the practice of “doing” ownership in several Sub-Saharan African countries (cf. Gunatilake and Carangal–San Jo 2008).

Transactions involving an unambiguous sale or disposal of shares or assets thus account for 70 per cent of all recorded transactions (as against 22 per cent for liquidations and restitutions), while methods allowing government to keep some of its prerogatives are used in only 8 per cent of the total. As is discussed below, however, the supposedly “competitive” basis of most of the transactions in Africa appears to be very ambiguous and debatable. This may have reduced the efficiency of privatisation in Africa, as compared with other regions (OECD 2004, 45).

It was often contended that privatization imposed on to developing countries was a scheme that strategically aimed for a complete disempowerment of ownership from government control hence transferred over to the private sector. However, this was not the case, generally governments in developing countries, especially in Sub-Saharan Africa, chose an alternative “in-between” form of private sector participation. *These forms ranged from tendering for construction contracts in large urban cities to joint ownership of water utilities* (Gunatilake and Carangal–San Jo 2008, 9). Taken from the Asian Development Bank working paper titled: *Privatization Revisited: Lessons from Private Sector Participation in Water Supply and Sanitation in Developing Countries* table 2 highlights the most common forms of privatization in which governments of developing country incorporated the public sector in the provision of urban water and sanitation services. *The options vary, depending on the risks that both the government and the private sector were willing to assume* (Gunatilake and Carangal–San Jo 2008, 9).

Three options of private sector participation, in terms of risk and willingness:

Option A represents willingness by the government to assume more risks while Option B indicates a decline in the risks that the public sector prefers to address, as this option involves partial private ownership. Both these options meant to introduce competition in WSS service segments that do not have natural monopoly characteristics. Option C signals a shift wherein governments move away from owning and operating the infrastructure, to regulating the services provided by the private sector (Gunatilake and Carangal–San Jo 2008, 9).

Table 1 Forms of private-sector involvement in the water supply and sanitation sector

RISKS/ ATTRIBUTES	OPTION A				OPTION B			OPTION C
	SERVICE CONTRACT	MANAGEMENT CONTRACT	LEASE OR AFFERMAGE	CONCESSION	BUILD OPERATE OWN CONTRACT (BOOT) and VARIANTS	REVERSE BOOT	JOINT OWNERSHIP OR MIXED COMPANIES	DIVESTITURE OR OUTRIGHT SALE
Asset ownership	Public majority	Public majority	Public majority	Public majority	Private and public	Private and public	Private and public (major)	Private, or private and public
Sectoral investment, planning, coordination, regulation	Parent ministry or separate public authority	Parent ministry or separate public authority	Public authority negotiated with private operator	Public authority negotiated with private operator	None or public authority	None or public authority	None or public authority	None or public authority
Capital financing (fixed assets)	Mainly market-based	Mainly market-based	Public	Private operator	Private operator	Public	Public	Private
Current financing (working capital)	Mainly internal revenues	Mainly internal revenues	Private operator	Private operator	Private operator	Public	Private operator	Private (government may pay for public service obligations)
Operation and Maintenance	Public entity	Private operator for specific services (billing)	Private operator	Private operator	Private operator	Private operator	Private operator	Private
Collection of tariff revenues	Public entity	Public entity	Public entity	Private operator	Private operator	Private operator	Private operator	Private
Managerial authority	Public entity	Public entity	Private operator	Private operator	Private	Private	Private and public	Private
Basis of private party compensation	Fixed fee based on services rendered	Based on services and results	Based on results, net of fee paid by the operator for the use of existing assets	Based on results, net of fee paid by operator for use of existing assets	Privately determined	Private firm pays annual fee to public authority equal to full debt service of entire investment	Not available	Privately determined
Typical duration	Less than 5 years, mostly 1–2 years	About 3 to 5 years	5–10 years or sometimes 8–15 years	10–30 years or sometimes 25–30 years	10–30 years	Long-term	Long-term	Indefinitely (may be limited by license)

Source (Gunatilake und Carangal–San Jo 2008, 9)

2.2 Why are policy makers interested in reforming the water sector?

The concept of privatization of utility services, especially of urban water sectors, is a fairly new approach in development aid giving little research data over the impacts of water privatization. However, in the short lived impact of privatization relative success had been limited only to a handful of countries; yet its fundamentals are still considered as a mean to reduce poverty, sustain the environment and even more threatening regulating water-born diseases. The next section will highlight two important perspectives that advocate the reformation of urban water sectors.

2.2.1 Economic perspective

In the era of infrastructural reformation in transition economies in the early 1990s (cf. Ioannis 2004, 219), international institutions had recognised the importance of treating water as an economic good, and the need to be managed as such – *its scarcity requires policies and institutions that can achieve economically and financially sustainable provision* (Ioannis 2004, 219). Water sector has two distinctive comparatives to other sectors. First, the supply of water is finite, and a matter of geopolitical boundaries; and secondly, water is essential for life and is non-fungible. Therefore it is a global endeavour to assure its availability and affordability to the entire population (cf. Ioannis 2004, 219).

Since a clear discrepancy had been identified between private ownership and state ownership in terms of efficiency and accountability as well as with the inclusion of MDGs stringent sustainable water agenda, sectorial reformation; in the form of privatization, had developed to be a key approach to reach both social welfare as well as efficient outputs.

The Chief of the Public Sector Management and Private Sector Development Division of the World Bank, Mary M. Shirley, demonstrates three views why governments should compel to privatize, as means for raising efficiency and countries Gross Domestic Product (GDP) (cf. Shirley 1992, 25).

Privatization improves the use of public resources:

Mostly all developing countries are stigmatized with the problem of struggling with inefficient allocation of public money and public management skills from high-priority uses (Shirley 1992, 25). Governments have two problems, which strongly interplay with each other.

- a) Relatively low public budget accompanied with a weak and mostly corrupt authoritative tier;
- b) and an array of underdeveloped public infrastructures.

Mary M. Shirley gives an example of Mexico's national airline fleet, and the negative effects when entire public budgets are disbursed into one sole sector. A common problem in developing countries.

The Finance Minister of Mexico uses a very telling example to illustrate how privatization can improve the use of public resources. Although only two per cent of the Mexican population has ever flown, the Mexican government, in an effort to upgrade the fleet of its national airline, paid an amount that could have covered the cost of paving over half of the nation's unpaved roads. In addition, he goes on to note that the accumulated losses of Mexico's large public steel mill now exceed ten billion dollars. With a fraction of that amount the state could provide potable water, sewerage, hospitals, and education to the poor in every community in Southeastern Mexico (Shirley 1992, 25).

Privatization has the potential to improve the utilization of public resources, however on two counts: Firstly; through the appropriation of private investments rather using public budgets, which subsequently puts the provisions of services in to the hands of private firms. And secondly; privatization operates with market rules and therefore seeks to raise efficiency in its distribution.

Privatization improves Operating Efficiency:

With appropriate allocation of public resources, privatizations can raise efficiency in its operations as well as in the use of its resources. This improvement is attributable to two factors: competition and private property rights (cf. Shirley 1992, 26):

On competition: John Vickers and George Yarrow argue quite convincingly that if public enterprises are not unfairly supported, then the efficiency of public and private companies under competition is the same. In developing countries, however, public enterprises tend to be unfairly supported. Often, support takes the form of a monopoly. Public enterprises may be monopolies even in markets where the potential for competition exists. In those rare cases where competition is allowed, the playing field is not a level one. Support can be obvious: subsidies, loans, loan guarantees, or tax exemptions. But support can also be "hidden:" in one African country, the enterprises were several years behind in paying their taxes and their utility bills. They faced no fee or penalty for this behavior. This "hidden" subsidy would interfere with free competition if the enterprise's competitors have to pay up and cannot run up arrears.

While some public enterprises are unfairly supported, others are unfairly burdened. Recently, a Pakistani manager of a public manufacturing company stated that he must train five workers for every one worker hired. It appears as if he were running a vocational training school, making it difficult for him to compete and hard for the government to insist on a competitive performance. Similarly, in one East Asian country, where most of the boards of directors of public enterprises are former military, the public enterprises are unfairly burdened. While these former members of the military offer little in the form of

managerial assistance, the public enterprises that employed the former generals and admirals are strapped with supporting their expensive tastes and lifestyles. (Shirley 1992, 25)

Similar to the case, when reputational banks face bankruptcy, governments are not reluctant to see that happen and intervene; in economics this form of governmental support is referred to as a bailout. This scenario is the same in the case when public enterprises face bankruptcy, only difference here is *that rather than sustaining these losses, governments attempts to prevent them by eliminating competition* (Shirley 1992, 26).

Privatization solves this problem because it encourages competition since there is no institution that will bail them out in the case of bankruptcy. It is the nature where profit orientated owners out - perform public owners, in terms of operating efficiency and consumer service, because frankly the stakes for private owners are much higher. This is due to the existence of private property rights that allows private firms to seek to promote economic efficiency, something that has failed in the hands of state ownership.

Privatization Improves Dynamic Efficiency:

Improving dynamic efficiency belongs to one of the capitalist Ten Commandments; through continuous investments into the expansion of infrastructures and additionally through the inclusion of new technological achievements; this literally is the capitalist mantra for propelling growth. There are two quite clear distinctions between private and public stakeholders. Firstly, private owners are less risk averse and flexible; and consequently are in a better position to assess and gross better outputs out of opportunities than public owners. *[P]ublic enterprise managers are rarely rewarded for taking risks, even those that are successful, while the penalty for unsuccessful risk-taking is often high* (Shirley 1992, 25). Secondly, the incentives are higher for private owners due to their own stakes invested in the company, which is a rational motivator (cf. Shirley 1992, 25).

2.2.2 Development perspective

In the development perspective, private participation is more concerned with raising societies welfare, through using privatization models as a tool to utilize envisioned international water and sanitation guidelines that assure a global availability and access to clean fresh water for personal and sanitation use.

The possibility of dying of pathogens contaminated in our tap or bottled water hardly swipes our minds upon consumption; although according to the WHO 1.8 million deaths account to poor water quality (cf. WHO 2007, 7). Today however, this matter is oblivious to the average man of the western world. This was not the case before the recognition for water treatment and waste management in the late 19th century where waterborne diseases, such as the London cholera outbreak of 1854, was a crucial cause of deaths in that time (cf. Rouse 2007, 55).

Water borne illnesses, such as Typhoid, Giardiasis or diarrhoea as are still overwhelming contributors in claiming millions of deaths in developing countries, which are attributable to peoples lack of access to potable water, as well substandard to total absence of sanitation and hygiene facilities (cf. Rouse 2007, 55).

WHO estimates that 94% of diarrhoeal cases are preventable through modifications to the environment, including interventions to increase the availability of clean water, and to improve sanitation and hygiene.[...] diarrhoeal episodes are reduced by 25% through improving water supply, 32% by improving sanitation, 45% through hand washing, and by 39% via household water treatment and safe storage (WHO 2007, 7)

Past improvement initiatives in the developing world had been more or less futile, since developing countries where simply sought to adopt the same standards in developed world, which evidently had been the wrong type of development aid.

In the provision of safe drinking water, importance must be put in establishing feasibly long term standards in accordance with the utilization of monitoring and enforcement bodies. From 2001 up till to September 2004 two *interrelated and commentary documents [the Bonn Charter and the WHO Guidelines]* were launched which refer to the need for water safety plans as a discipline approach to risk management. Both conceptual frameworks developed the groundwork for an appropriate approach to the provision of water.

The Bonn Charter

The Bonn Charter claims to be a universal applicable constitution in the provision of water, with its focal agenda in assuring clean; pathogen free drinking water. The Charter provides a full framework for the *various stakeholders, politicians, government officials, regulators and senior water utility managers highlighting [key principles and responsibilities] for an integrated approach to delivery of safe drinking water:*

- *There is a need for an integrated approach to include all organisations involved from catchment to tap;*
 - *There should be closes co-operation between all in the supply chain;*
 - *Transparency is vital for consumers' taps, will depend upon local circumstances, but should cover both safety and acceptability;*
 - *The need for clarity of responsibility for each part of the supply chain.*
- (Rouse 2007, 58-59).

The Charters goal is to achieve “*good safe drinking water that has the trust of the consumer*” (International Water Association 2004, 6), by considering all the parties on the supply chain and coordinating a system for an integrated approach. The Governments role and responsibility equate to the department of a companies “back office”, focusing more on the administration of water supply. It aims to establish *an independent system of coordinated water quality regulation, and the provision for institutions and coordinated arrangements to deal with risks to water quality from catchment to tap* (Rouse 2007, 59). Water providers on the other hand can be concluded as the “front office”, focusing on the development and integration of water safety plans and *ensuring that the full cost of service and provision is identified, including the cost of maintenance and provision assets* (Rouse 2007, 60). The consumer’s responsibility is to avoid drinking from weak and inappropriate water resources. Furthermore, the framework implores the need for transparency between producer, consumer, regulatory bodies, in all stages, since sharing information is pertinent in the quest for assuring fresh drinking water for all (cf. Rouse 2007, 60).

WHO Guidelines

The WHO Guidelines builds upon the Bonn Charters “water safety plan”, within “the safe drinking water framework” but additionally emphasising on health based targets. The WHO’s policies is to impact health improvements while incorporating a set of new standards of “supporting information”, where data is collected based on *microbiological, chemical, radiological and aesthetics aspects* in the provision of water.

The WHO health based targets is an exemplary approach towards ensuring the safety of drinking water however, it has been criticised by the donor community, that regardless of the positive outcomes, the measurement of this health based targets, which are inevitably linked to heavy investment in the water and sanitation sector, will exceed costs developing countries could not bare. Furthermore, Michael Rouse argues that the WHO standards are not a necessity in the implementation of the water safety plan, but rather mere supplement towards better and quantifiable results. *There is also the risk that the effort taken in producing health-based targets could delay the preparation and implementation of water safety plans or, even worse, deter governments from embarking on their development* (Rouse 2007, 60).

Both interrelated documents, the Bonn Charter and the WHO guidelines, have developed

international principles, *but their implementations involves the incorporation of the recommended approached, together with the guideline values, into local laws, policies and procedures* (Rouse 2007, 60).

In the course of successfully reforming urban water sectors and sanitation sectors both perspectives detailed in the previous chapter need to be jointly devised and agreed upon, especially in developing countries, where cultural differences and information asymmetry revolving around water and hygiene exist. The complexity in the provision of water and sanitation services will be discussed in the following chapter.

3. CHAPTER

THE ECONOMICS OF WATER SUPPLY

3.1 Supply and Demand

The water sector has two decisive attributes that make the reformation of its infrastructure exceptional strenuous compared to the other sectors. One of the major issues developing countries face is the inadequate and the geographically unbalanced water coverage through utilities, followed by *poor services, high unmet demand, often deteriorating water resources, and an inability to finance needed rehabilitation and expansion* (Ioannis 2004, 220). The economics of water supply is *the challenge for regulation [:] to meet both efficiency and social welfare objectives in the water sector, balancing the needs of operators, consumers, governments, and environment* (Ioannis 2004, 219).

First, the supply is finite and location-specific. Second, because safe water is crucial for life and health, its availability and affordability for the entire population are of enormous welfare (and political) importance. These features, combined with the sector's economic and technological characteristics, limit institutional options for supply, create regulatory challenges, and highlight water's significance in achieving social and economic development goals—especially poverty reduction and environmental sustainability (Ioannis 2004, 222)

According to the Patrick Webb, the problem does not necessarily lie in the availability of water, but rather in the access to water as well as the allocation of water (cf. Grover 2006, 18). Considering *Freshwater is unevenly distributed geographically and temporally, resulting in surplus for some people and a threat of severe water insecurity for others* (Grover , 2006, 18). The UN identifies two types of countries; *water-stressed or water scarce, depending on amount of renewable water available* (UNPF 2001, 12)

UN definition:

“Water-stressed countries have fewer than 1,700 cubic metres of water available per person per year. In this circumstance, water is often temporarily unavailable at particular locations, and difficult choices must be made among uses of water for personal consumption, agriculture

or industry. Water- scarce countries have fewer than 1,000 cubic metres per year. At this level, there may not be enough water to provide adequate food, economic development is hampered and severe environmental difficulties may develop (UNPF 2001, 12).”

Figure 2 shows the global availability of water by sub-regions. The UN has managed to depict water rich and water scarce countries. *Unfortunately, as with most aspects of economic development, the scarcities tend to be most severe where capacities to overcome them are the weakest* (Grover 2006, 18). The definition of water scarcity in an economic sense is a matter of costs where *the cost of capture, treatment, and transport make supply and distribution unaffordable* (Ioannis 2004, 221). As already mentioned water availability is not a problem and it is not an issue of absolute scarcity, but rather a matter of an inefficient provision system (cf. Ioannis 2004, 221).

Figure 2 Water resources per capita, by sub-region, 2001, (average annual cubic meters)



Source: United Nations Population Division

Source (UNPF 2001, 12)

Countries surrounding the sub-Saharan region are water scarce, in the sense that they have a very limited geographic radius of natural supply, which is determined by several of factors i.e. the cost of transporting surface water or pumping from aquifers (cf. Ioannis 2004, 221). Sub-Sahara Africa

is the continent with the most water scarce countries. According to the UNDP Sub-Sahara Africa has *the lowest share of population with access to clean water (for domestic consumption)-only 57% in 2000, but falling in rural areas to only 44%* (Grover , 2006, 18).

There is a comparative trend in the global distribution and the degree of people's accessibility to water from fairly easy to strenuous, which differs from country to country. According to this diagram we can extrapolate that there is a strong correlation between water quality and quantity and a countries level of development; countries with unhindered access to clean water are more industrialized compared to countries that have limited or no access at all. There is a symptom where the commonalities amongst the majority of poor countries found in Africa and in Asia share a list of severe socioeconomic constrains, including a considerable weak and underdeveloped urban water supply infrastructure. The reason for that is two-fold; first, only a small percentage of the annually global investments of roughly US \$80 billion per year aimed to improve the water sectors quality accounts to developing countries, the majority of the investment receives western rich industrialized nations. Secondly, the investment costs are much higher in developing regions due to the lack of existing infrastructure (cf. Grover 2006, 18). A country might have adequate water available, however due to a lack of infrastructure or service providers, hindering factors as such make water not accessible – *resulting in lower returns to investment and hence lower investment itself* (Grover 2006, 18).

Water is a competitive resource, which makes its regulation of supply and demand extremely arduous. The World Bank policy research report on reforming infrastructure has outlined the major challenges in the supply and demand of water. Firstly, fresh water is a salient economic input, which is a key resource in solving economic and social demands. The exhaustion of water is a resource of intense economic competition, *and rises with population growth, urbanization, and industrialization* (Ioannis 2004, 221).

The sustainability of a water resource depends on whether net extraction rates (including water returned to the source) are less than inflows. The quality of the water source determines the spending needed for treatment before use (Ioannis 2004, 221).

Patrick Webb continuous, that regardless of the vast amount of funding and research invested in establishing water services and irrigation infrastructures in water stressed countries, as well as the expansion of water pipelines to remote areas to improve water availability at a national level, there is still no guarantee that water scarce households will actually profit from these initiatives and have accesses to water (cf. Grover 2006, 20). Since other more severe socioeconomic conditions coexist with the water epidemic, such as undernourishment and poverty, which need to be addressed as well, rather than simply establishing water supply services by addressing the problem through increasing water availability at a national level. He continuous by saying that *it is equally about accessibility to supplies, appropriate usage once accessed, and the management of hazards that may impinge on all three* (Grover 2006, 20).

3.2 High fixed costs and pricing issues

Efficient water provision systems require heavy capital investments and are often higher relative to the market size. Costs that often exceed developing countries budget. These fix costs are the sum of four with in each other complementing components that determine the efficiency of water delivery systems.

[Firstly] *capture of the natural resource (for example, through reservoirs and wells), [secondly, the] treatment to ensure adequate quality for use, [thirdly the] transportation (for example, through aqueducts and mains—the primary network), and [lastly the] delivery to users (through pipelines and taps)* (Ioannis 2004, 221).

The development of water infrastructures compared to other utilities has always been tied to higher fix costs in relation to its variable costs, because since most of the development happens underground, in the form of laying underground pipelines; improving water coverage networks is extremely capital intense than setting up high voltage poles – *fixed costs account for more than 80 per cent of water supply costs in the United Kingdom* (Ioannis 2004, 221). Another study from the United States claim that fix costs of annual tariff revenues in the water supply and sanitation sector is 10:1, where as in for energy it is 4:1 (cf. Gunatilake and Carangal–San Jo 2008, 12) Under autonym this would have severe issues in water pricing, self –financing providers would subsequently raise water prices to recover fix costs from the provision of water and sanitation services. However, in reality providers face political regulatory mechanism that lever tariffs for

water very low, leading to a long operating periods without recovering invested fixed cost (cf. Ioannis 2004, 223). Long payback periods mean also low accountability, which results to unenthused investors. This is extremely crucial for private firms trying to set foot in a foreign countries, in which there output value is relatively regulated by the government.

In theory, operators would be doomed to fix tariffs below service standards. Aligning tariffs and privatization contracts is a contentious issue, which has led to international concerns; however the renegotiations on the basis of tariff levels with the public sector had been common practice, but with devious and moral hazardous repercussions, mostly occurring in developing countries.

In the concession tenders for both cities, firms were required to submit bids with average tariffs at or below levels previously charged by the government Davis (2005) argues that companies tend to pledge unrealistic tariff reductions during the bidding, expecting to renegotiate these clauses once the contract is awarded. Many governments often agree to

new demands by the private firm given the high political and financial costs of cancelling a contract and initiating a new bidding process. These problems are common in developing countries where governments' capacity to negotiate contracts with experienced multinational firms as well as to regulate their operations is weak (Gunatilake and Carangal-San Jo 2008, 14).

3.3 Natural Monopoly and competition

Given to waters non-homogeneous characteristics; water constitutes a natural monopoly, which therefore is subject to a regulatory regime. One important increment adding to waters natural monopolistic position, unlike any other resource, is that the provision of water cannot be substituted for any other resource. Water is essential for livelihood.

The natural monopoly dilemma also occurs given to waters relative low unit value in relation to its capture; treatment; transport and delivery costs; *centralized transmission through a large national or regional network [...] is impractical* (Ioannis 2004, 223-224) Therefore national water systems are geographically decentralized and provision rights are given to suppliers covering a specified region. *Water systems are usually vertically integrated [utilities] especially in small and medium-size markets. In metropolitan areas with larger markets and reliance on multiple water sources,*

several vertically integrated entities can coexist, with each operating a separate distribution network in a separate zone of the city (Ioannis 2004, 224). Water networks demand regulatory systems to set guidelines in terms of water quality and quantity, as well as informational transparency of the condition of underground infrastructure, i.e. pipelines, sewer.

The natural monopoly problem in the water supply and sanitation sector has hindered potential providers competing over the water market due to high dissuasive transaction and risk costs. In order to raise productive efficiency, innovative measures need be applied to create a competitive environment. The Asian Development Bank suggests three strategies that will improve efficiency in the urban water supply and sanitation service sector; through *concentration, trading water rights, and competition* (Gunatilake & Carangal–San Jo, 2008, 17). However, these strategies aren't always feasible, for example, while the latter two approaches are common in industrialized countries, the implementation of “concentration”; which is the consolidation of several water suppliers into one controlled water sector management area, is not realizable in developing economies due to geographical, legal and political constraints (cf. Gunatilake & Carangal–San Jo 2008, 17).

In regards to competition there are several forms that challenge the monopoly problem. Competition either for the market (*i.e., through bidding of contracts [...] or through direct product competition [for example border line] competition [between two countries] allows customers (usually large customers) that are located at the border of a supply area to purchase water from an existing neighbouring utility. [Or another example; common] carriage [...] is a model of interconnection, wherein two or more rival companies render water services in the same area and customers are free to choose their water supplier* (Foellmi and Meister 2005, OECD 2004).

In the latter form former monopolists cooperate with small companies by allowing them to connect to their utilities such as using their pipelines for distribution. However there are difficulties in common carriage agreements *including limitations of mixing different water qualities, extensive coordination requirements for the exchange of treated water, diseconomies of scale due to pumping requirements, and quality losses over long distances that can significantly limit the exchange of water between utilities* (Foellmi and Meister 2005, OECD 2004).

3.4 Health and Environmental Externalities

The provision of water, if appropriate coverage and quality is regulated according to institutional standards, will subsequently have a series of positive externalities in regards to an individual's well being, as well as substantial environmental impact (cf. Ioannis 2004, 224). The sustainable approach to water is an imperative part in the water and sanitation reform.

Excessive water off-take from private wells leads to costly building subsidence. Poor disposal of untreated wastewater contaminates groundwater and degrades natural resources in the region, such as watersheds and coastal habitats. Water spillage and pooling from bad drainage contributes to disease risks. Many of these negative effects can be diffused on long term, making them difficult to identify and prevent. (Ioannis 2004, 224)

Securing a risk-free access to water is a prime political impetus, which through policy governing water user rights, commands, *and control regulations, and tax- or fee-based restrictions ("polluter pays")* may be appropriate to limit harmful externalities and achieve socially desirable outcomes (Ioannis 2004, 224).

3.5 Technological change in delivery

Technological leaps, regardless the sector, is a key factor in propelling economic development. Unlike any other sector in the last few decades, the water infrastructure has undergone hardly any technological improvements to better its economies of supply.

Unlike in telecommunications, there has been no revolution in the product and in underlying costs. Unlike in electricity generation, there have been no new production methods. And unlike in some segments of transportation, there have been no fundamental improvements in operations, management, or availability of critical information (Ioannis 2004, 226)

The most innovative approach was the implementation of a widespread metering mechanism, which *enables utilities to set tariffs that reflect the marginal cost of water used and to bill for actual consumption* (Ioannis 2004, 226). The introduction of metering has brought several positive returns: for one: peoples consumption is become more transparent for both the monitoring provider as well

as for the end-consumer. Secondly, the consumer is less reluctant to over consume or miss-use water since their consumption is tied to a set of tariffs; in the case of over consumption additional costs are billed. This is part of a special pricing policy introduced into the infrastructure of water provision.

Due to the difficulty of measuring the elasticity of demand - *that is, how price changes affect the amount of water consumed by different groups of customers and their decisions to connect or remain connected to the water system*, two types of water tariffs have been fixed: *single-part tariff a consumer's water bill is based on a fixed charge or a water consumption charge [and] a two-part tariff the bill is based on both a fixed charge and a consumption charge* (Ioannis 2004, 226)

Technology is especially important in meeting the demand side of poorer communities. Finding alternative arrangements such as *self-provisioning and small-scale private distribution* (Ioannis 2004, 226) have been innovations complementing provision systems that ensured better access and affordable technology. These alternative providers, *purchase [their] bulk water from the utility [and] benefit from the network economies of scale and the utility's water treatment*, (Ioannis 2004, 226) have managed to satisfy a demand segment not meet by bigger utility providers. However, despite recent innovative achievements, the water sector in contrast to other sectors still account for having the lowest technological improvements.

3.6 Rational regulation

As already mentioned in the previous chapter, natural monopolies, due to there high *fixed costs, externalities, and social welfare concerns* (Ioannis 2004, 227) are bound to governmental regulation; protecting both the consumer and the producer. The provision of water is not a very competitive market amongst private firms due to the difficulties in generating revenue. *Regulation in the public interest aims to guard against extraction of monopoly rents and ensure adequate water quality while guaranteeing that investors earn a necessary return on long-lived assets* (Ioannis 2004, 227).

In the process in establishing a regulatory framework for the water sector, three aspects need to be achieved, as stated by the World Bank.

- *Efficiency—producing and delivering water at the lowest possible cost, maintaining assets, and conserving supply.*
- *Equity—ensuring that all residents have access to affordable, quality service.*
- *Environmental sustainability—minimizing pollution and damage to natural resources (Ioannis 2004, 235).*

Effective regulation without excessive governmental control has been challenging. As well as utilizing sustainable water guidelines for the supply of water has been strenuous. However, information asymmetry, between consumer, provider and regulator, is among the intrusive constraints blurring transparency and accountability, which poses a potential inclination towards corrupt behaviour. The issue is that, a majority of water infrastructures, i.e. pipelines are underground, and therefore hard to evaluate and monitor quality standards. On the consumer side, information needs to be available by the provided, since *consumers can only partly assess the quality of water (in terms of clarity, taste, and smell); complete assessment requires regular expert testing* (Ioannis 2004, 236). Regulatory frameworks need to secure the interest of supplier, consumers and regulators, within a sustainable sphere.

[R]egulators must provide credible assurances of adequate returns on long-lived capital assets, which implies curbing public sector performance risk. To protect consumers, regulators must ensure that water will remain safe and affordable. And for taxpayers, regulator assurances must extend to future generations without creating undue fiscal or debt burdens or irretrievably damaging natural resources (Ioannis 2004, 236).

Many Sub-Saharan African countries water supply and sanitation services were stigmatized by a single company and often these single operators were responsible for servicing the entire region, from urban to rural. *This setup is designed to generate cross-subsidies between regions, with capital cities providing most of the revenues to cover the costs of serving smaller urban areas* (Ioannis 2004, 229). However these setups were futile and many African countries had failed to improve their services towards a more decentralised mechanism. Weak infrastructures managed by single providers and their suggested cross-subsidies had left water coverage in both rural and urban areas unchanged and relative low. SSA monopoly supply had been ineffective in improving and supplying WSS (cf. Ioannis 2004, 229).

Urban water management in many SSA countries could resolve their structural inefficiency. A new approach; through *separating the water business from government departments and creating autonomous, self-financing, utility-type entities [...], these corporatized and commercialized structures offer the minimum conditions for competition—direct or indirect—by making the business of water supply more transparent* (Ioannis 2004, 230).

3.7 Low coverage and access and availability

The general expectations in the inclusion of the private sector of the allocation and servicing of public resources, such as water, is presumably to develop and improve efficient water networks across rural and urban areas. The expansion of more developed and efficient water coverage is the impetus of reform policies. However, increasing water infrastructure in transition economies has been everything but easy. Two socioeconomic difficulties had made public sector participation difficult.

On the demand side, water users in some countries are not willing to pay cost-recovering tariffs, partly because people are not aware of the health benefits flowing from reliable supply of water (Gunatilake and Carangal–San Jo 2008, 14). This is a common problem in rural areas, which needs prior to the implementation of water utilities, *effective strategies to sensitize the public on key issues such as paying for water, raising hygiene awareness, reducing vandalism and misusing facilities*. In many cases, cultural differences over the perception of water for instance have been decisive constraints pressuring the demand side. And made it difficult to implement cost-recovery tariffs in cultures that believe in the intrinsic nature of water being free and a common resource (cf. Gunatilake and Carangal–San Jo 2008, 14).

The supply side on the other hand is driven by the ethics of profit. From the standpoint of a private water supplier, investments can only be made in terms of profitability. This is among the major concerns antagonist of the inclusion of private firms into the public domain postulate, that poor communities will be inevitably marginalized or even excluded from efficient water supply and sanitation services, due to their inability to meet private supplier demands (cf. Gunatilake and Carangal–San Jo 2008, 14).

PSP could hurt the poor in at least two ways. First, introducing PSP may make cross subsidies difficult

and encourage private firms to “cream skim” or “cherry pick”, i.e., serve the most profitable customers and ignore the unprofitable ones (i.e., poor and rural consumers). This led private water companies in the People’s Republic of China—Suez and Veolia—to operate largely within or near the wealthier residential and industrial [centres] (McKee 2007). Second, large costs in water supply force private

operators to recoup their investment by charging high connection costs, which the poor cannot afford [...]. For instance in Buenos Aires, customers in the poorest regions were asked to contribute almost 20% of their income to get water connections (Estache et al. 2000).

Communities in rural areas are mostly affected by these deep-rooted neoliberal mechanisms. *A World Bank study on improving rural water supply [...] showed that installing a large-scale piped system can cost five to ten times more than rural wells and simple gravity-fed piped systems.* (Gunatilake and Carangal–San Jo 2008, 15). Through the use of conventional technology, so called small-scale independent providers (SSIPs), supply water to the poorer communities. However, SSIPs have been criticised for having extremely high tariffs, because since they cannot *exploit the same economies of scale that large water utilities* [can, they are forced to] *charge by as much as four to ten times the usual rate* (Gunatilake and Carangal–San Jo 2008, 15)

Up till now, I have outlined the ecology of water supply; the constraint and requirements needed in establishing an efficient water provision system. I have now and then hinted to the difficulties found in developing countries, but how exactly has privatization evolved in Sub-Saharan Africa? Before going into the core issue of my research paper I find it important to start from the beginning of the privatization hype, which started in the western world. The next chapter will discuss the prominence of privatization in industrial countries.

4. CHAPTER

THE BEGINNING OF WATER PRIVATIZATION IN INDUSTRIALIZED COUNTRIES

Different crisis's seek different measures; for us to fully understand the current water predicament we need to look at the history of water usage or some sort of water management systems, which will give us discretion over today's water challenge (cf. Prasad 2007, 220). The need for water privatisation or water supply management has developed into a prominent topic in the mid 1800s among industrialized countries. While technological advancement and urbanisation pushed regional borders outwards, traditional water supply methods such as fetching water from *wells or water vendors* (Prasad 2007, 220) were becoming less efficient and lagged industrial development behind. Unbound by time or century, the development of a strong water infrastructure is for a government of paramount importance. The characteristics of water expansion in the mid 1800s were driven by *the lack of or poor quality of water, environmental and public health concerns, industrial use, or a variety of combinations* (Prasad 2007, 220). Naren Prasad calls it a more business-orientated motive as compared to today's humanitarian approach. Early water supply approaches were made in the 13th century (cf. Prasad 2007, 220).

“Dublin was the first modern city to introduce public water supply [...] During this time, water was supplied by street carriers in other European cities. London's first major attempt to provide water supply was in 1582 (by a Dutch Peter Morris by erecting a

water wheel at the London Bridge) [...] However, the early 19th century was the mark where localized systems were abandoned in favour of a highly centralized and integrated water supply system [which] occurred in 1802 in Paris, 1808 in London and 1856 in Berlin. (Prasad 2007, 220)

Although the true inception of water supply management is debatable; privatization characteristics such as public sector reformation and decentralization, as we know it today, happened in the early 19th century. The next few paragraphs will give examples on how certain socio-economic conditions called for water management system in industrialized countries.

4.1 New York Experience

Experience is gained through the success and failure of implementations. New York in the 18th century was an example of how bad hygiene quality and diseases urged a transformation of traditional water supply services (similar to what pushes privatization in developing countries today); a shift from public local wells over to the development of a more infrastructural water supply system (cf. Prasad 2007, 220). Bad water quality produced an economic initiative led by business people, so called "Tea Water Men", who serviced the public with good quality - but only to those who could afford it (cf. Prasad 2007, 220). The conflicts occurring in the New York water experience in the 18th century show similar characteristics (availability of water; access to water and water quality) to contemporary water conflicts in developing countries. Naren Prasad discusses these parallel conflicts with the example of how New York began its approach towards water provision.

Since [not everyone could] afford 'tea water' and because of the increasing risks of fire, the city started to construct aqueducts in 1774. [...] But this was short lived because of the Revolutionary War (1775-1783). A major epidemic of yellow fever struck in 1795. The public blamed the poor quality of 'tea water' and filthy wells for this epidemic. Under pressure the city turned to the private sector for providing clean drinking water. In the beginning the city was reluctant to make initial investment and it therefore called on the private sector investors. It was argued that the municipality could not raise enough capital through loans and taxes to finance the works. Hence, the Manhattan Company, which later became the Chase Manhattan Bank, was formed to deliver water

in the city. In its first 32 years, it laid only 23 miles of pipes and continued to force New Yorkers to rely on the collect pond and local wells. It is argued that this company was one of the 'most corrupt, incompetent, and disastrous experiments in water privatisation on record.[...] with a series of disasters (a large fire in 1828, and a severe outbreak of cholera epidemic in 1832 & 1835), the government was forced to tackle the water issue. A Board of Water Commissioners was created to raise infrastructure capital (reservoir) in order to supply water to the city (Prasad 2007, 221).

New York is a perfect example displaying the precursor of water provision systems and how certain constraints urge for improvements over traditional mechanisms. According to Naren Prasad another metropolis such as London and Berlin have similar stories as New York in terms of developing growing dependency on the private sector (cf. Prasad 2007, 221).

4.2 London Experience

London during its first industrial revolution around the 16th century suffered severe economic setbacks. The city refused to invest into its public sector, and on that account passed the baton on to the private sector. The recognition for a more controlled water service is almost identical with the case in New York: A cholera epidemic outbreak in the mid 19th century, led to an apportion of the cities entire water supply amongst nine regulatory entities, which from then on supplied the city with clean potable water (cf. Prasad 2007, 221). *In 1902, with the Metropolis Water Act, the water entities were municipalised* [-to amalgamate the nine private entities under one single body].

Some water was provided free through charities in the form of public fountains (Prasad 2007, 183)

In the early 1800s, London-bridge Waterworks company was practicing some sort of cross subsidies for the supply of water: an extra charge was levied on brewers, stable-keepers and tradesmen. The authorities were concerned that, unlike those who could afford to pay, the poor would not be able to afford services from the private sector and some poor areas did not have supplies. It was argued that the poor could be supplied only through a 'public body'. It is argued that municipal and the local authorities were unwilling to undertake the risk of supplying water in London, which led private companies to fill this vacuum. However, the private sector was reluctant to supply water to the poor, except through the medium of the landlord or through separate reservoirs with intermittent supply. The rich had their own supplies whereas the poor bought water from private vendors at high prices (two shilling per week - an equivalent to their rent) or were getting it from rivers and wells. In 1861 the share of private provision of water supply in larger towns was 60 per cent, which decreased over time reaching 20 per cent in 1881 and only 10 per cent in 1901. During the period 1900-1974 the municipalities were in charge of the water supply with the exception of 20 per cent of the population who were supplied by private water companies. The 1974-1989 period saw largely ten regional water structures based on river basins (between 1974 and 1989 there were 29 private companies supplying between a fifth and a quarter of the population of England and Wales with water) and after 1989, the regional water supplies were privatised (Prasad 2007, 221-222)

All these aforementioned countries had recognized the importance of reforming its water sector. In all three countries the inefficient use of water had been the common denominator in solving; social, economical or political issues. Regardless of the sector or branch; water plays an important part in societies well being. How has the importance of water institutionally manifested itself? And how have developing countries managed to approach their scarcity crisis?

In the last few decades the development community has recognized the correlation between water and poverty, and as we have seen in the London and the New York experience water regulating systems if down right raises social welfare. Institutions such as the UN and its Millennium Development Goal have been major contributors in promoting global well being; a driving force in aiming towards the reduction of global poverty. However, the relative success of the UN Millennium Development Goals had also been strongly assisted by reformation and “privatization” policies; since the progress of overall development is tied to financial availability, privatization potentially alleviates the fiscal and monetary burden donor institutions and governments have. The next chapter will revolve around the MDGs and how urban water sector reformation became a key requirement in the development process.

5. CHAPTER

MILLENNIUM DEVELOPMENT GOALS

In less than a year, the United Nations will be called by its global enforcer making 2015 the judgement day for the UN, where the entire world will scrutinize the achievements and the shortcomings of the Millennium Development Goals welfare implication. The international as well as a local integration of the MDGs framework into the global development endeavours constitutes a list of technocratic designed indicators, which are mainly focussed to factor towards social and economic development. The UN water initiative defines the MDG as follows:

The Millennium Development Goals (MDGs) are the world's time-bound and quantified targets for addressing extreme poverty in its many dimensions-income poverty, hunger, disease, lack of adequate shelter, and exclusion-while promoting gender equality, education, and environmental sustainability. They are also basic human rights-the rights of each person on the planet to health, education, shelter, and security (UN-Water kein Datum).

MDG abiding countries require a range of new and improved tools including (a) reliable benchmark data against which to measure MDG progress; (b) policies and programs to enhance, reinforce, and sustain development activities; (c) sustainable institutional and sector structures that are both strong enough to inspire confidence and flexible enough to adapt to changing environments; and (d) investments appropriately focused on overcoming constraints to MDG achievement. (Banerjee, et al. 2008, 1)

In order to meet the specified UN MDG targets, the latter requirements are to be institutionalized afore the determined 2015 deadline. In the last decades, however there has been a growing concern that several countries might not meet all of the MDG targets by 2015, regardless of international initiatives. International initiatives such as the Heavily Indebted Poor Countries (HIPC) Initiative; resulting from the 1998 G8 summit in Cologne, realized at an early stage that meeting the eight targets by 2015 looked for some countries somewhat grim. In the G8 summit, rich countries agreed on to waive a total of \$36.5 billion of outstanding debts poor countries still owed them, of which Sub-Saharan Africa was greatly burdened with. Debt cancelation was sought as an essential step to

alleviate the repayment burden poor countries were pressured with, allowing them to fully invest into the attainment of the MDGs by 2015. Seeing that without that initiative, aid funds would have been forced straight into the repayment of debts, and the countries could not focus on reviving its economy or challenge its poverty dilemma (cf. TearFund, n. d.).

The UN Department of Economics and Social Affairs (UNDESA), together with the UN water task force on sanitation have declared the year 2008 as *The International Year Of Sanitation (IYS)*, a consequential initiative that resulted out of the fear of not meeting the promised MDGs of halving extreme poverty in developing regions by 2015 (cf. UN-Water kein Datum).

A few years later in 2011, the General Secretariat of the United Nations formulized the post MDG report; highlighting the progresses made thus far and the challenges still waiting for and after 2015. Generally, the MDG *progress had been far from uniform across the world-or across the Goals*, (UN-Water kein Datum) there have been various reasons that explain the uneven and stagnant development, but more of this in another chapter.

There are huge disparities across and within countries. [...] Sub-Saharan Africa is the epicentre of crisis, with continuing food insecurity, a rise of extreme poverty, stunningly high child and maternal mortality, and large numbers of people living in slums, and a widespread shortfall for most of the MDGs. (UN-Water kein Datum)

The following chapter will generally deal with the ecology of the Millennium Development Goals and its prime agenda in reducing poverty in SSA, before extensively discussing one specific target; 7C, which envisions the improvement of environmental sustainability with core focus of reducing, *the proportion of the population without sustainable access to safe drinking water and basic sanitation* (UN Department of Public Information, 2013). But before we understand the institutions revolving around the MDGs and its poverty reduction agenda, I would like to start with defining poverty and how institutions; predominantly the UN, portrays and addresses poverty. Furthermore, I want to link the various water initiatives and their ambition in alleviating the poverty crisis.

5.1 Defining Poverty

What is poverty? And how has it been institutionally fixed ?

In the paper “*A poverty-reduction approach to water scarcity, Sanitation and Hygiene programmes*” the author Alan Nicol explains how the international policies perception and definition over poverty; which has continuously changed over decades, defines the way poverty is confronted. “*The meaning and idea of poverty are not static concepts, but have been actively debated for much of the last century*” (Nicol 1999, 4). The general understanding of poverty in recent years has been of a descriptive nature – a wealth based approach towards poverty; as something “specific”, solely addressing the tangible aspects of poverty. Alan Nicol speaks of *transitory and seasonal poverty, which have been contrasted with the notions of chronic, gender-specific, child specific and urban or rural types of poverty* (Nicol 1999, 4). However, this descriptive concept of poverty disregards the true essence of the value-laden within the poverty conundrum, giving little depth into the intrinsic linkages that actually leads towards poverty; since it fails to address other several poverty dimensions. Otherwise *seeking a poverty-reduction approach becomes a political decision and on which some governments are reluctant to take* (Nicol 1999, 4). International policies need to shift away from “wealth based” - descriptive poverty definitions” towards a “needs based”- prescriptive poverty understanding (cf. Nicol 1999, 4).

5.1.1 Wealth based

The 1950s and 1960s modernisation theories as well as the stages of growth thesis have defined poverty as being a matter of failing market engagement. This out-dated definition of poverty stood solely in correlation to a country’s economic growth – *a decline in income per capita, with a threshold measured in US dollars per day at purchasing power* (Nicol 1999, 4). The predicament was as followed: lack of income indicates *economic inactivity or marginalisation* [, which] *leads to reduced income (or consumption) causing individuals and household impoverishment* (Nicol 1999, 4) It is an institutional political driven approach that implies that with enough income the poor could buy themselves out of poverty, be acquiring and exchanging services and goods on the market, a concept that has often been promoted in pro-poor economies as a means to generate growth.

The wealth-based definition made poverty quantifiable, however it strongly *fails to recognise other barriers [with in a socio-economic environment], including access to political power, and cultural and social barriers to accessing social and material goods (regardless of extra income)* (Nicol 1999, 4).

5.1.2 Needs based

The needs base approach established itself in the 1970s, an initiative that emerged out of the integrated rural development project. This approach offered new prospects for developing countries, particularly as the previous approach, which was solely limited to economic growth, led to vain. A new aspect was incorporated to address poverty at a multidimensional level. *The idea of “basic needs” reflected a wider view of social and economic deprivation, which was not limited to economic growth, but included social factors such as health, education and access to water and sanitation* (Nicol 1999, 5).

Addressing the complexity that drives people into poverty through integrating the social and political dimension, rather only focusing on the economic dimensions, were the works of the mid 1980s; which conveyed a better understanding to poverty’s impetus. This new approach highlighted a wider range of various applications to poverty *the idea of capacities, capabilities and empowerment [...] led to an emphasis on participation at all stages of development* (Nicol 1999, 5). One important aspect that found emphasises in the new poverty approach was the issue to “rights”; who has the rights, who owns the rights etc. *This approach developed in tandem with an increasing emphasis on rights based approaches representing the emergence of a more politicised and challenging development environment* (Nicol 1999, 5). This transition from wealth based to needs based approach established a new development agenda targeting water and sanitation.

5.2 Approach to water and sanitation (UN Water Decade)

The significance for water and sanitation development found its impetus in the action plan manifested in the Mar del Plata water conference in the 1977. It brought a new stage in development, particularly the emphasis on shifting away from a somewhat top-down approach of

solely supplying “basic needs”, towards a more participatory approach to delivering more and better services to the poor. The conference managed to stress the international donor community and governments “*about water resources and the environment, [furthermore it] stressed the need for sectoral development, the establishment and improvement of national institutions, and for greater spending in the water and sanitation sector*” (Nicol 1999, 6).

The success of the action plan led to the inauguration of “*The International Drinking Water Supply and Sanitation (IDWSS) ‘Water Decade’, 1981-1990*” (Nicol 1999, 6); a formation that envisioned the development of a wide spread water coverage by 1990; also referred to as the “the super goal”, at national level with governments being the primary provider of basic needs. Governments became the conduit for development efforts, and this was problematic, in the sense that in case of serious social or economic changes, the development efforts were put on hold such as the 1980s debt crisis. This crisis started a domino effect across industrial countries sweeping over to developing countries, led to a hold up in “the doing development process”. Another issues were the inconclusive definition of access to water, which each country was left to define; assessed to their own criteria’s.

The project resulted in the understanding that governments were not the most appropriate actors to propel development or improve water coverage at a national level. *Some 1.3 billion people worldwide still lacked access to safe water and 1.9 billion had no access to appropriate sanitation.* According to the 1996 Water Supply and Sanitation Sector Monitoring Report, at the time of the Water Decade (1980s and early 1990s) countries lacked the appropriate systems to measure or collect data over water coverage and sanitation level. Apart of the *fact that access levels [were] defined nationally and hence, are largely incomparable* (Nicol 1999, 6), without cross-reference rates it is improbable to relocate resources to deprived areas. Due to the lack of efficient statistical monitoring possibilities, regional differences in coverage couldn’t be addressed.

The 1996 WHO monitoring report stated that while the rate of increase in water supply provision was reported to be some 8% a year (1990-1994), in comparison to the 1980s this increased improvement represented mainly a significant change in Asia and the Pacific regions (accounting for some 90% of progress achieved in water supply and sanitation). Within the sector, sanitation has lagged behind water supply and levels have actually fallen in urban and rural areas. By the end of 1994 only 18% of the world's population had adequate access to sanitation. (Nicol 1999, 8)

5.3 World Banks Approach

The UN Water Decade was an ambitious introduction that raised international development sensibility concerning the issue of sustainable development in the provision of water and sanitation services. However, transforming these assigned objectives such as “universal water coverage” by 1990 into quantifiable results remained unchallenged. The term “sustainability” in the development approach, gained prominence within the donor community; after the World Commission on Environment and Development report, ‘Our Common Future’, was published in 1987; which reaffirmed the importance of sustainability.

Sustainable development was associated with sustainable use of natural resources, and this in turn was linked to the idea of resource conservation, and (most significantly) maximising efficient use of scarce financial resources. Sustainable approaches became associated with cost-effectiveness and cost-recovery. After Water Decade the overlap of the idea of sustainability and increasing concerns about the use of scarce financial resources has had enormous subsequent implications for a poverty focus in the water and sanitation sector. (Nicol 1999, 9)

International development assistance faced a new “turn” in the early 1990s – *the international consensus – driven by the World Bank and UNDP – viewed state provision of services as both expensive and unsustainable, particularly given the prevailing economic state of many developing countries* (Nicol 1999, 8). The World Bank changed its development policy, emphasizing new priorities in reducing poverty levels, in which it encouraged government’s divestiture and the devolution of public authority to a lower tier.

If responsibility for operations is to be decentralized, care must be taken to ensure that local governments or beneficiary groups have enough funds and technical skills to handle the work. In some instances, there may be tension between the financial sustainability criterion for including communities in a programme and the poverty criterion for being able to reach the poorest clients...Governments often oppose charging for water drawn from hand pumps and stand posts for political and technical reasons. But there is a clear evidence that poor people will pay often a substantial part of their income if they can be assured a regular supply (Nicol 1999, 9).

Within the establishment of the sustainability paradigm, governments did not have the conduct to manage resource utilities efficiently. Attached to this growing sustainability “hype” was also a new

awareness of recognizing water as an economic good. This perception emerged *As a follow-up to Mar del Plata, the Dublin conference led to the explicit statement that there had been a past 'failure' to recognise that water was an 'economic good'. It was implicitly stated that there had been a failure to appreciate the need for consumers of water to pay a price for the resource* (Nicol 1999, 9).

Similar institutions and initiatives such as the UNCED “Earth summit” and Agenda 21 followed suit and removed service responsibility away from governments authority; through strictly focusing on the “resource users - needs” rather on the “resource suppliers – wants”. Another vital aspect was inducted - *the willingness to pay [as] desired within communities* (Nicol 1999, 9). Establishing a dialog from producer to consumer, where transparency, information and accountability is shared between both ends. This is assessed on the consumers willingness to pay because a person will only pay a tariff if he or she is positively convinced of the products quality. This approach is designed to bring promising results at both ends of the development spectrum; on the one hand guaranteeing effective planning and implementation of projects, and on the other hand incorporating communities into the development process. In 1998 the World Bank orchestrated a conflation of a wide range of sectorial experts and staff from several agencies, embarking on a new development concept called the Demand Responsive Approach (DRA) focusing on the water supply sub-sector i.e. service cost and delivery of efficient water supplies, rather than addressing the issues of water hygiene and sanitation.

The link between sustainability and service delivery is made between the community as the end consumer and its willingness and ability to manage the payment of a tariff (hence cost recovery) in order to gain access to the resource. [...] This allows new service providers such as private companies and NGOs to operate effectively. It is not an approach, which seeks explicitly to 'reach the poor', but one which expects to improve the overall cost-effectiveness and sustainability of supplies within the sector (Nicol 1999, 9).

5.3.1 Demand Responsive Approach and Implementation

The DRA poses a lot of concerns. Since water had been subscribed an economic value, reducing poverty in the context of promoting water supply and sanitation and hygiene has adapted neoliberal

characteristic. This externality appears to solely focus on the provision of water with little focus on the severe sanitation and hygiene endemic; a concept that was designed to reach the poorest communities but ironically those to whom it was dedicated to be most deprived from such services. This is a server issues since sanitation levels are already far behind than water supply provision, especially in rural areas. Questionable is how the *mechanisms for eliciting demand for a service which does not provide a household with an economic asset or with something that is consumable* (Nicol 1999, 10). This new perception over water and sanitation development has prescribed current environmental policies and the way poverty is approached, although there is a consensus acknowledging the dynamics of availability and access to potable water in a society through the utilization of efficient sanitation and hygiene services will potentially reduce poverty. However, in spite of all that less focus had been put on the health factor. Service provision will improve water quality by reducing *contamination from source to consumption* (Nicol 1999, 10), but will not be enough to raise overall health benefits.

The *demand-responsive approach seems to challenge the consensus [,] which has built up around the need for integrated interventions in order to achieve the desired health benefits* (Nicol 1999, 10). It is more focused on establishing an efficient supply infrastructure; through promoting water as an economic good, which is not free; and therefore *appropriate charging mechanisms must be adopted, which reflect local socio-cultural and economic conditions* (Nicol 1999, 9). The World Bank's formalized DRA approach has been criticised as being too biased; to economically. A more integrative approach that promotes the synergy of water, sanitation and health combined, is sought after within the core agenda of reducing poverty.

5.3.2 Poverty-Reduction Approach

A poverty-reduction approach reduced the gap *between water supplies and urban and rural livelihoods* (Nicol 1999, 10).

A development of a wider conception of poverty into the water and sanitation sector; one which addresses poverty as a livelihoods issue for individuals, households and communities. In so doing the notions of coverage and access are also challenged: provision of a community water supply does not imply that access is universal within a community, or a household. Occupational barriers, social barriers and gender-barriers,

which frequently overlap, can serve to prevent access to the resource either at the community or household level. While health benefits are not to be 'removed' as a goal, they should be complemented by greater attention to establishing sustainable livelihoods (Nicol 1999, 10).

One of the main challenges in the development of water and sanitation infrastructures is to aspire a shift away from DRA policies and more towards policies in which the poor; who are the most deprived of from such services and health benefits, get integrated into the process; and get a chance to reap the benefits of international development assistance. Through analysing the linkages between water and sanitation, livelihoods and the poor's household economy; better sustainable approaches can be created with higher positive externalities; because *such an approach views water not simply as a 'consumable' economic good, but as a productive asset* (Nicol 1999, 13). [A]n *explicitly poverty-focused approach to water and sanitation* (Nicol 1999, 13) will ask for a broader view; challenging the problem from multiple dimensions. Since poverty is not a homogenous epidemic, rather a result of invisible socio-economic factors, importance is put in challenging the nature of poverty within its given environment. However, in the implementation of the latter concept, two key concerns occur in the integration of a poverty reduction approach:

1. Is the achievement of health benefits a sufficiently broad indicator of impact to encompass other negative and positive benefits on the poor, as individuals and as households?

2. If not, then can a different kind of integrated approach which takes a broader view be reconciled with a demand-based approach? (Nicol 1999, 10)

The enormity of poverty can only be challenged from multiple dimensions and the availability and access of water plays a substantial factor in SSA future social development and economics. The fundamental shift from traditional demand responsive strategies towards a more poverty reduction strategy promises better sustainable macroeconomic results.

In the history of development cooperation Official Development Assistance (ODA) had been the *traditional means to support the international community to solve [global socio economic problems]* (Takahashi 2002, 69). However, in the last few decades new economic trends have changed the basis of ODA and with it introduced a new development approach. The 1990s aid crisis conceptualized into a new reality.

According to Kazuo Takahashi [t]he essence of the new reality is that the basic forces that organize the world community have changed from the cold war to two "tracks" of globalization. Market-based globalization is quick to impact on the world community and is, thus, the fast track, whereas political economy globalization is taking a longer time to form an alliance and to make itself felt in international society and is, thus, the slow track. For the time being, the fast track globalization is providing the basic structure to the world community, including the developing world, which has been divided into three categories, and at the same time it is pushing the global community to recognize the importance of global public goods (Takahashi 2002, 69).

The next chapter will address the impact of the 1990s declining bilateral and multilateral ODA flows and how receding aid flows called for new foreign aid strategies such as the target setting approach of the MDGs. Foreign aid of the post-aid crisis meant for transition economies that were financially depended from the forthcoming of international communities, to adopt several of Structural Adjustment Programmes (SAP); *for example, in the implementation of political and economic reforms, the establishment of democracy, good governance, accountability, structural adjustment programs, etc.*, (Takahashi 2002, 103).

5.4 The Impact of the Aid crisis: Official Flows vs. Private Capital Flows

The 1990s was the start in which the MDG crystallized itself to something more fundamental; targets were set which originated from various self-contained summits. However, the 1990s was also characterised by a strong decline in Official Development Assistance flows, which was a setback for the OECDs Development Assistance Committee and other multilateral agencies. (cf. Hulme and Scott January 2010, 3) *Between 1990 and 1997, total net flows of official development loans (ODA) declined from US\$ 53 billions to US\$ 48.3 billions. At the same time, private capital flows rose from US\$ 43.6 billions to US\$ 252 billions* (Nguyen 2000).

In the current market based globalization process a decline in ODA raised major concerns to both developing countries, whose economy was heavily dependent on external financial resources and donor agencies, which had an international commitment and promise to assist developing countries. However, failing to pay the initial ODA target, fixed in 1958, of 1% countries Gross National Product to developed countries, donor targets had to subsequently drop from 1% GNP to 0.7%

GNP in 1970 (cf. Nguyen 2000). The post cold war era was marked as the nadir of ODA capabilities, a cumulative turn was expected in the 1990s global *"peace dividend"*, in which *developed countries would reduce their defence expenditures to save resources for development assistance to developing countries. Expectations did not materialized [instead] developing countries found themselves now competing with other countries in transitions for scarce official loans* (Nguyen 2000).

Whilst the overall ODA suffered a severe decline since the 1990s, private capital flows – *comprising [Foreign Direct Investments (FDI)], commercial lending and portfolio investment - has been the shift from commercial banks to non-bank sources of external finance* (Nguyen 2000). Although private capital flows were increasingly finding their way into developing regions, due to market liberalization and the intensified private sector engagement; it did not flow evenly. *Altogether, 12 countries accounted for over 80% of private capital flows to the developing countries during the 1990s - six countries on the top were Argentina, Brazil, China, Indonesia, Malaysia and Mexico. China accounted for 60% of the flows to the region and 25% to all developing countries* (Nguyen 2000). Private capital flow has reached only a few recipient countries; this raises the pertinent questions of whether the bypassed countries are somewhat worse off? (cf. Nguyen 2000)

Another major problem are debts and financial crisis in which developing countries are often left in, after receiving private capital flows, *starting from the Pertamina crisis in 1974 to the Mexican debt crisis in the 1980s and the East Asia crisis in late 1997* (Nguyen 2000). This is not so the problem with official aid flows, which are received in the form of grants or loans at a very low interest rate, *long grace periods and long period for repayment that help developing countries' needs for external financial resources* (Nguyen 2000).

[T]he movement of private capital in the last decade create problems for developing countries in either direction : The inflows put pressure on the local currencies to appreciate which erode the profitability of the tradable sectors (mainly agriculture and manufacturing) making exports more expensive and causing the trade balances to worsen which in turn increase the dependence on foreign inflows. The outflows on the other hand necessitate domestic demand cuts, which result in a fall of domestic output capital, currency depreciations, and interest rates increases. In some cases, the fast pace of financial liberalization has also significantly delinked finance and investment

from international trade and has led to high volatility of capital flows. This has weakened the capacity of some developing countries to manage effectively their integration into the world economy. The effect of the volatility need to be addressed by the international community. Experience have shown that freely functioning markets alone cannot always ensure that foreign private capital will create productive assets and yield income. There is a role here for the government to regulate the inflows of foreign capital and to channel them into areas of national priority (Nguyen 2000).

A decline in a donor's country ODA commitment demonstrates the overall appreciation of the current obstinate global challenges. Institutions, which focused on international development, were increasingly marginalized (cf. Hulme and Scott January 2010, 3) and were constantly engaged in policies of confrontation. The development progress in developing regions had been tied to the amount of ODA received.

5.5 Assembling the MDG

The way institutions and aid donors engaged had changed for the worse, due to the aforementioned issues of declining ODA. In 1996, the OECDs Development Assistance Committee (DAC) called for a change, and *to set up a Groupe de Réflexion with [ambitions] to review the future of development aid and the role of the DAC* (Hulme and Scott January 2010, 3). A new justification for development and development operations needed to be prioritized to reinstate aid flows (cf. Hulme and Scott January 2010, 3). In the succeeding year, the DAC assembled the OECDs high level meeting of ministers on the 23-24 May 1996, where International Development Goals (IDGs) were set (concerted approval by all OECD members), which were drawn from the fundamentals set at the UN summits. The IDGs were finalized in a 20 page document called "Shaping the 21st century", that focused on economic growth, gender equality; goals mainly formalized by the industrialized countries (cf. Nicol 1999 14). The new approach of *Target-setting had become a common device for reforming public services (based on ideas from 'results based management')* and it appealed to the US, UK, Germany and Norway in particular, which had begun to use 'logical frameworks' in their aid programmes (Hulme and Scott January 2010, 3).

Contemporaneous to the DAC "shaping the 21st century", the UN; with then entitled UN Secretary General Kofi Annan, was in the process of organizing something similar for the turning millennium

as a solution to restore the UN's reputation as an international aid organisation. Something more promising and with more ambition, since the resolutions accorded to the last summit - The UN's 50th Anniversary Summit in 1997, had been somewhat ineffectual. The Millennium Assembly of the United Nations was coequal to the DAC, in terms of defining new potent global key issues waiting in the new millennia. The importance of the resolution that eventuated out of this conclave would have severe ramifications on UN's credibility as a respectable global organisation and as the prominent mouthpiece of the social ills of the poor.

In April 2000, Kofi Annan produced a report, which comprised the same principles as woven into the DAC of the UN conference summit declaration, called *We the Peoples: The Role of the United Nations in the 21st century, which all member states could agree* (Hulme and Scott January 2010, 3). The goals set in the *We the Peoples* was supported and approved on the 8th of September 2000 by 189 countries and laid the basis for the Millennium Declaration. However, despite having the same genesis moulded, in to both the DAC and the UN papers/reports, there were some significant differences in the targets set and the "roadmap" needed to achieve these goals. David Hall described this problem in his paper:

[T]here were now two sets of different goals being worked on simultaneously – the IDGs in DAC and (what would become) the MDGs in the UN. There were two options for resolving this issue. One was to continue on a two-track process, but this would look messy and add grist to the mill of aid opponents who could point to the fact that even the international development agencies could not agree on a set of objectives. The second was to merge the two [which] Kofi Annan could not be seen to be modifying the Millennium Declaration when it had the agreement of 189 countries. Similarly, the DAC felt that the IDGs were simpler, monitorable and achievable, and had been endorsed by the World Bank, IMF and UN in June 2000. Hall continuous stating that [t]he issue was resolved in a World Bank convened meeting held in March 2001. It was agreed that the two would be merged, and that there would be a division of labour between the Bretton Woods Institutions (BWIs), which would continue to control national Poverty Reduction Strategy Papers (PRSPs), and the UN, which would drive the MDG process. With these compromises, Kofi Annan could put together the Road Map Towards the Implementation of the United Nations Millennium Declaration. (Hulme and Scott January 2010, 4-5)

The origins of the MDGs and to a certain extent its objectives, seem very deluded and somewhat strategically orchestrated by industrialized "cartel-like" donor organisations. According to David Hall, the IDGs were compiled with a view to altering the political conditions surrounding aid flows

and were pushed up the agenda by the Utstein Group – a group of four like-minded women that were ministers for international development in the UK, the Netherlands, Norway and Germany in the late 1990s [and the following] the merging of the IDGs and MDGs was undertaken between the club of rich nations (the OECD), the BWIs, in which the richest nations dominate, and the UN Secretariat (Hulme and Scott January 2010, 5). To a further extent the bonhomous characteristics of the MDGs is predominantly a product of the rich; a tailored product according to donor's political will.

5.5.1 MDG, a product of the rich?

Allegedly the MDGS originated out of the Millenniums Summit in September 2000 (UNDP 2002-2006); succeeding in a *unanimous approval by 189 UN member states and 147 national leaders* that led to the adoption of the UN Millennium Declaration, which *was in many regards a tremendous achievement, declaring an international social norm that sees extreme poverty as morally unacceptable in an affluent world* (Hulme and Scott January 2010, 2). David Hall, a prominent professor of development studies at the university of Manchester, described the MDGs in his paper titled: *The political Economy of the MDGs as a product [designed by] the rich world* (Hulme and Scott January 2010, 1), since it was mainly industrialized countries that led the development debate and furthermore predominated the needs and ambitions fostered in the MDGs. *The developing countries' only major input was to ensure that there was a goal related to what the developed countries should do* (Hulme and Scott January 2010, 5)

He continuous arguing that the UN Millennium Summit served as an important milestone for the stabilization of the MDGs, however its true origin is an element of a much longer process involving a handful of donor agencies such as the OECD, the World Bank and the IMF (cf. Hulme and Scott January 2010, 3). The development and target settings of the DACs IDGs, which led to the MDGs dates back to a series of conferences and summits traceable to the 1960s covering all sorts of development issues such as health, human rights, social development etc. However the relevant issues, which laid the basis of the MDGs were formulized in summits of the 1990s (cf. Hulme and Scott January 2010, 3).

The next section will give a detailed outlook on the MDGs progress

5.6 Global MDG Progress According to the UN MDG Report 2013

Since the implementation and the scheduled deadline in countries meeting the MDGs by 2015, overall progress has been a matter of definition. Its effectiveness and credibility has become a global target for criticism. Despite the fuel, food and the global financial crisis, a few goals have been met and some have even exceeded the assigned target years before the 2015 deadline; whereas progress in other goals are far from satisfactory (cf. United Nations 2013). However, with some of the targets already checked ahead of time more focus needs to be directed to the more strenuous targets, in order to meet the 2015 goals.

Recently, the United Nations published the MDGs report 2013 underlining current achievements as well as future struggles in the fight against global poverty. One thing is evident that progress and success is extremely uneven; both on a global as well as on a regional scale – sadly success is; and has always been a matter of geographical, economical and political interest (cf. United Nations 2013, 6-7). The United Nations based on data provided by various UN subsidiaries, have compiled a lucid chart indicating the MDG's current state of affairs.

According to World Bank's projection the "global" proportion of halving the amount of people living in extreme poverty has been reached five years ahead of the 2015 deadline (United Nations 2013, 4). *In developing regions, the proportion of people living on less than \$1.25 a day fell from 47 per cent in 1990 to 22 per cent in 2010. About 700 million fewer people lived in conditions of extreme poverty in 2010 than in 1990.* (United Nations 2013, 4). Although these figures seem impressively at a global scale progress has been prominent in only a few regions. In many countries the poverty rate as been failing due to international aid initiatives (cf. Hulme and Scott January 2010, 7). Asian countries are likely to meet the 2015 target and according to David Hall that is solely due to the progress achieved in eastern Asia (China due to its rapid development).

Extreme poverty is very much still prevalent in Sub-Sahara Africa and western Asia and under prevailing trends targets won't be met by 2015. Reasons are manifold, however intrusive deteriorative events such as the economic and financial crisis had widened the global job gap by 67 million people (cf. United Nations 2013, 6). David Hall argues that *before the 2008 economic crisis targets looked likely to be achieved, this improvement is heavily driven by the tens of millions of people escaping poverty in China and India* (Hulme and Scott January 2010, 7).

Meeting the scheduled MDGs will be a mere delusion for countries of sub-Saharan Africa as well as countries in the Oceania and in the Western Asian hemisphere. *Sub-Saharan Africa is the only region that saw the number of people living in extreme poverty rise steadily, from 290 million in 1990 to 414 million in 2010, accounting for more than a third of people worldwide who are destitute* (United Nations 2013, 7). According to the 2013 progress chart all three regions have been showing insufficient progress in meeting any of the 8 targets. Global economic down turn and high food prices have slowed or even reversed progress in several countries in the latter regions (cf. Hulme and Scott January 2010, 7).

Table 2 Millennium Development Goals: 2013 Progress Chart

	Africa		Asia					Latin America & the Caribbean	Caucasus & Central Asia
Goals and Targets	Northern	Sub-Saharan	Eastern	South-Eastern	Southern	Western	Oceania		
GOAL 1 Eradicate extreme poverty and hunger									
Reduce extreme poverty by half	low poverty	very high poverty	moderate poverty*	moderate poverty	very high poverty	low poverty	very high poverty	low poverty	low poverty
Productive and decent employment	large deficit in decent work	very large deficit in decent work	large deficit in decent work	large deficit in decent work	very large deficit in decent work	large deficit in decent work	very large deficit in decent work	moderate deficit in decent work	moderate deficit in decent work
Reduce hunger by half	low hunger	very high hunger	moderate hunger	moderate hunger	high hunger	moderate hunger	moderate hunger	moderate hunger	moderate hunger
GOAL 2 Achieve universal primary education									
Universal primary schooling	high enrolment	moderate enrolment	high enrolment	high enrolment	high enrolment	high enrolment	—	high enrolment	high enrolment
GOAL 3 Promote gender equality and empower women									
Equal girls' enrolment in primary school	close to parity	close to parity	close to parity	parity	parity	close to parity	close to parity	parity	parity
Women's share of paid employment	low share	medium share	high share	medium share	low share	low share	medium share	high share	high share
Women's equal representation in national parliaments	low representation	moderate representation	moderate representation	low representation	low representation	low representation	very low representation	moderate representation	low representation
GOAL 4 Reduce child mortality									
Reduce mortality of under-five-year-olds by two thirds	low mortality	high mortality	low mortality	low mortality	moderate mortality	low mortality	moderate mortality	low mortality	moderate mortality
GOAL 5 Improve maternal health									
Reduce maternal mortality by three quarters	low mortality	very high mortality	low mortality	moderate mortality	high mortality	low mortality	high mortality	low mortality	low mortality
Access to reproductive health	moderate access	low access	high access	moderate access	moderate access	moderate access	low access	high access	moderate access
GOAL 6 Combat HIV/AIDS, malaria and other diseases									
Halt and begin to reverse the spread of HIV/AIDS	low incidence	high incidence	low incidence	low incidence	low incidence	low incidence	low incidence	low incidence	intermediate incidence
Halt and reverse the spread of tuberculosis	low mortality	moderate mortality	low mortality	moderate mortality	moderate mortality	low mortality	high mortality	low mortality	moderate mortality
GOAL 7 Ensure environmental sustainability									
Have proportion of population without improved drinking water	high coverage	low coverage	high coverage	moderate coverage	high coverage	high coverage	low coverage	high coverage	moderate coverage
Have proportion of population without sanitation	high coverage	very low coverage	low coverage	low coverage	very low coverage	moderate coverage	very low coverage	moderate coverage	high coverage
Improve the lives of slum-dwellers	moderate proportion of slum-dwellers	very high proportion of slum-dwellers	moderate proportion of slum-dwellers	high proportion of slum-dwellers	high proportion of slum-dwellers	moderate proportion of slum-dwellers	moderate proportion of slum-dwellers	moderate proportion of slum-dwellers	—
GOAL 8 Develop a global partnership for development									
Internet users	high usage	moderate usage	high usage	high usage	moderate usage	high usage	low usage	high usage	high usage

The progress chart operates on two levels. The words in each box indicate the present degree of compliance with the target. The colours show progress towards the target according to the legend below:

Target already met or expected to be met by 2015.

Progress insufficient to reach the target if prevailing trends persist.

No progress or deterioration.

Missing or insufficient data.

* Poverty progress for Eastern Asia is assessed based on China's data only.

Source (United Nations, 2013)

5.6.1 True success according David Hall

Where progress has been made, caution must be taken in attributing this to MDGs. David Hall gives an interesting fact about the success on why some of the goals have succeeded.

He argues that *much of the reduction in extreme poverty was achieved between 1990 and 2000 through economic growth in China and India – before the MDGs even existed. [However] progress in some indicators might even have slowed since the MDGs were introduced.* He continues by giving an example where *under-five mortality in Southern Asia fell at a rate of around 3.5 per year between 1960 and 2000, while progress since 2000 has been at around 2.75 per year. Where progress has been faster since 2000 this may be more appropriately attributed to factors other than the adoption of the MDGs, such as fast economic growth in Asia, the associated rise in commodity prices and the emergence of sub-Saharan Africa from the two 'lost development decades' of the 1980s and 1990s.* (Hulme and Scott January 2010, 7).

According to this statement, some of MDGs determined targets have been thriving before the frameworks implementation. Nevertheless the UN initiative has made a global impact by penetrating medial landscapes and encouraging people, governments and institutions to contribute towards a better global future, which had been evident in the modest increase of ODA provided by donor countries *as was implicit in target 8 (develop a global partnership for development) and explicitly endorsed at various subsequent meetings* (Hulme and Scott January 2010, 7)

Together with the adoption of the worldwide action plan summarized into eight anti-poverty goals and a global commitment to the MDGs, had been a huge step towards a sustainable future. However, identifying the causes, which lead to destitution, has been strenuous in the last two decades- reasons I will discuss in the following chapters. But the main question is how to bring the various factors of poverty to its knees with as little strikes as possible? My answer is water!

Water is crucial to all forms of social and economic development, just as it is a necessity for most nature's processes (the Swedish Water House kein Datum, 2). Through vigorously focusing on the targets revolving around fresh water and sanitation services will have positive multiple effects on several other MDG targets. The multi-facet of water in achieving the several MDG targets will be discussed in the following chapter.

6. CHAPTER

THE ROLE OF WATER IN ACHIEVING THE MDGS

“Water is the dividing line between poverty and prosperity” (the Swedish Water House 2004).

Water is the main ingredient in all life supporting systems and a common denominator in improving all MDGs. To date, 1.4 million children die annual of diarrhoea; annually half a million die of malaria; approximately one billion people live in dry lands; depended on natural water sources for their survival (cf. the Swedish Water House 2004, 6); 200 million people are affected by Schistosmiasis, a disease attributed to contaminated water; which is preventable and treatable with adequate freshwater, sanitation and hygiene services. Methods in retaining water has been the question of the millennia with 80% of export earnings in low income countries accounting to the agricultural sector of which 70% of global freshwater is used (cf. the Swedish Water House 2004, 6). The water crisis is a ubiquitous problem. In 2004 the Swedish Water House jointly produced with the Millennium Project a policy paper addressing the key role of water in achieving the Millennium Development Goals (cf. the Swedish Water House 2004, 5). *Water resources management is an essential ingredient to virtually all the MDGs, as [the following table] summarises. Its role in combating poverty and hunger, ensuring environmental sustainability improving health and reducing gender inequalities is analysed in more detail below* (the Swedish Water House 2004, 4).

Table 3 Water – A Cross-cutting Tool for the MDGs

Millennium Development Goals and Assorted Targets	Improved water resources management and access to water supply and sanitation has benefits for each of the eight MDGs:
<u>Eradicate extreme poverty and hunger</u> Target 1: To halve the proportion of the world's people whose income is less than \$ 1 /day	• Water is a factor of production in agriculture, industry and economic activities • Investments in water infrastructure/services as a catalyst for local/regional development • Reduced vulnerability to water-related hazards reduces risks in investments and production • Reduced ecosystems degradation makes livelihood systems more secure • Improved health increases productive capacities, reduces burden on those who care for the sick

Target 2: Halve the proportion of the world's people who suffer from hunger	• Water is a direct input to irrigation for expanded grain production • Reliable water for subsistence agriculture, home gardens, livestock, tree crops • Sustainable production of fish, tree crops and other foods gathered in common property resources (also affects poverty when such goods are sold for income) • Reduced urban hunger due to cheaper food prices • Healthy people are better able to absorb the nutrients in food than those suffering from water-related diseases, particularly worms
<u>Achieve universal primary education</u> Target 3: To ensure that children everywhere complete a full course of primary schooling	• Improved school attendance from improved health and reduced water-carrying burdens, especially for girls • Having separate sanitation facilities for girls and boys in schools increases girls' school attendance
<u>Promote gender equality and empower women</u> Target 4: To ensure girls and boys have equal access to primary and secondary education	• Community-based organisations for water management improve social capital of women • Reduced health, and care-giving burdens from improved water services give women time for productive endeavours, education, empowerment activities • Water and sanitation facilities closer to home put women and girls at less risk for sexual harassment while gathering water and searching for privacy • Higher rates of child survival are a precursor to the demographic transition toward lower fertility rates; having fewer children reduces women's reproductive responsibilities
<u>Reduce child mortality</u> Target 5: To reduce by two-thirds the death rate for children under five	• Improved quantities and quality of domestic water and sanitation reduce main morbidity and mortality factors for young children • Improved nutrition and food security reduces susceptibility to diseases
<u>Improve maternal health</u> Target 6: To reduce by three-fourths the rate of maternal mortality	• Improved health and reduced burdens from water portage reduce risks • Improved health and nutrition reduce susceptibility to anaemia and other conditions that affect maternal mortality • Sufficient quantities of clean water for washing pre-and-post birth cut down on life-threatening infections • Higher rates of child survival are a precursor toward lower fertility rates, and fewer pregnancies per woman reduce maternal mortality
<u>Combat HIV/aids, malaria</u> <u>And other diseases</u> Targets 7 & 8: To halve, halt and begin to reverse the spread of HIV, malaria, other major diseases	• Improved health and reduced burdens from water portage reduce Better water management reduces mosquito habitats • Better water management reduces risk for a range of water-borne diseases • Improved health and nutrition reduce susceptibility to/severity of HIV/AIDS and other major diseases

<u>Ensure environmental Sustainability</u> Targets 9 & 10: To stop the unsustainable exploitation of natural resources and to halve the proportion of people who are unable to reach or afford safe drinking water	• Improved water management, including pollution control and water conservation, is a key factor in maintaining ecosystems integrity • Development of integrated management within river basins creates situation where sustainable ecosystems management is possible and upstream downstream conflicts are reconciled • Biodiversity conservation, combating desertification furthered by sound water management
Target 11: To have achieved a significant improvement in the lives of at least 100 million slum dwellers major diseases	• Improved domestic water supply and sanitation and better water management reduce the biological pathogens and chemical hazards to which slum dwellers are exposed • Better water management reduces risk for a range of water-borne diseases • Improved health and nutrition reduce susceptibility to/severity of HIV/AIDS and other major diseases

Source (The Swedish Water House 2004, 5)

The water supply and sanitation collaborative council considers the supply of water as well its access and availability to the poor as an investment, rather than an economic cost as it has been addressed in the past (cf. the Swedish Water House 2004, 3). There are notable correlations between having weak or total absence of domestic water system and a country's degree of poverty. Analysing these social and economical links between water and poverty will encourage development as well as fulfil the poor with the basic aspiration of living a healthy life. *Expanding access to water and sanitation is a moral and ethical imperative, rooted in the cultural and religious traditions of societies around the world and enshrined in international human rights instruments* (the Swedish Water House 2004, 15).

But where do we stand in meeting the MDG water targets?

6.1 Have we meet target 7C

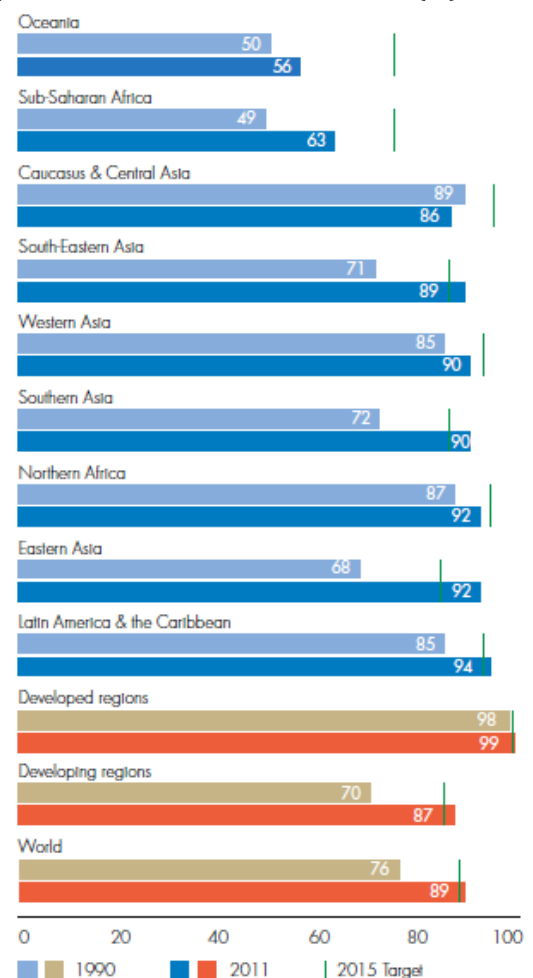
As already covered in the introduction, water is an indispensable and irreplaceable resource, which dictates human's basic aspiration in life, of being able to live a long and health life. The MDG target 7C aims to *halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation* (UN Department of Public Information 2013). Since the inception of the Millennium Development targets general achievements have been made but are far from being satisfactory. Reason for this stagnant performance is manifold; one assumption would

be that the topics and initiatives related to water supply and sanitation have garnered unpopularity on a global scale. Another assumption would be that various communities have developed a cultural stigmatization (cf. Jekel, Meran, & Remy, 2008) towards privatization, institutional interference etc, an attitude that formed itself out of the outcomes of failed or inefficient project implementations.

The UN Millennium Development goals report 2013 the progress in realizing target 7C has been as follows:

- *The world has met the target of halving the proportion of people without access to improved sources of water, five years ahead of schedule [despite population increase].*
- *Between 1990 and 2010, more than two billion people gained access to improved drinking water sources.*
- *The proportion of people using an improved water source rose from 76 per cent in 1990 to 89 per cent in 2010.*
- *Over 40 per cent of all people without improved drinking water live in sub-Saharan Africa.*
- *In 2011, 768 million people remained without access to an improved source of drinking water.*
- *Over 240,000 people a day gained access to improved sanitation facilities from 1990 to 2011.*
- *Despite progress, 2.5 billion in developing countries still lack access to improved sanitation facilities (UN Department of Public Information 2013).*

Figure 2 Proportion of Population using improved water sources, 1990 and 2011 (%)



Source (United Nations 2013, 47)

Drinking water coverage has increased in all regions except the Caucasus and Central Asia. Their coverage rates dropped from 89 per cent in 1990 to 86 per cent in 2011. Eastern Asia, South-Eastern Asia and Southern Asia showed the largest gains. Six in 10 people who gained access to improved drinking water sources live in urban areas (United Nations 2013, 47).

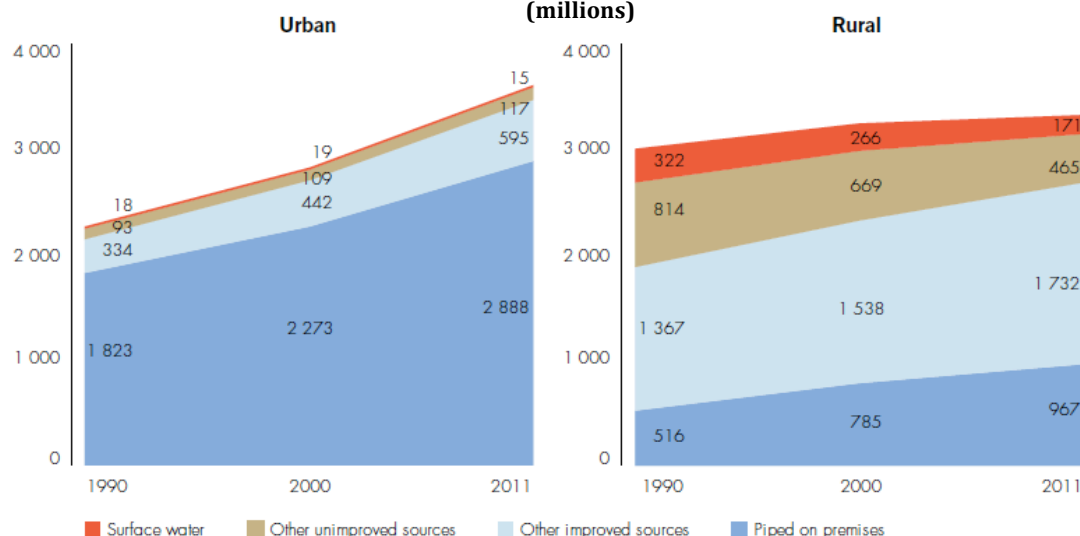
6.1.1 Access to drinking water

Regardless of the fact that the MDG Target 7C had been globally achieved five years ahead of schedule; however, the UN still identifies a serious of concerns in the access to the quality and the safety of water for the marginalized rural poor. Two years prior to the UN MDG report 2013 an unprecedented number of *768 million people still drew water from unimproved source [and] Eighty-three per cent of the population without access to an improved drinking water source (636 million) live in rural areas* (United Nations 2013, 47). Due to geographic “favouritism” and a global and social-economical dilemma, had led to a more targeted and sufficient water coverage improvement in urban areas in contrast to rural areas. Ironically however, *38 per cent of the 6.2 billion people globally using an improved drinking water source do not enjoy the convenience and associated health and economic benefits of piped drinking water at home* (United Nations 2013, 47). Instead, people mostly the poorest in the society out of tradition or cultural belief, will persist on carrying heavy loads of poor quality water across long distance, which cost substantially more and is time consuming for an amount that will not even meet their families needs with the thought that surface water (untreated) is healthier then piped water. What is a tool without the instructions; initiatives have to be made that will change the public’s misconception.

6.1.2 Access to sanitation

Over 240,000 people a day gained access to improved sanitation facilities from 1990 to 2011—impressive but not enough (United Nations 2013, 48). An accessibility of approximately another 1 billion people is needed to achieve the MDG target on sanitation. *In 1990, just under half (49 per cent) of the global Population had improved sanitation. Coverage must extend to 75 per cent to meet the target, up from the current level of 64 per cent.*

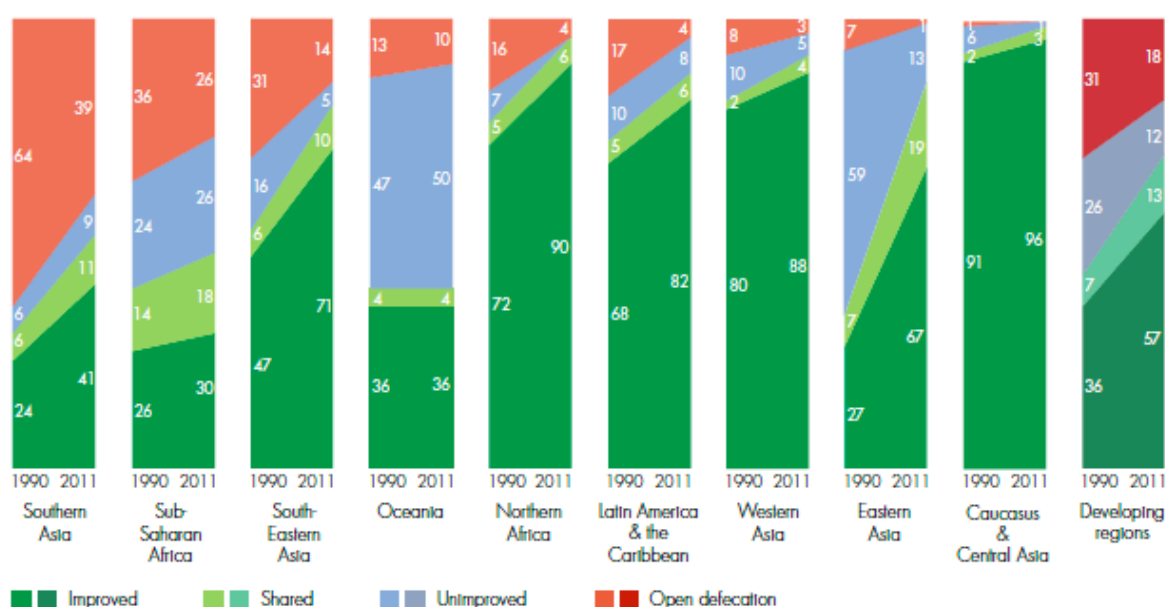
Figure 3 Population with access to drinking water, urban and rural areas, 1990, 2000 and 2011 (millions)



Source (United Nations 2013, 48)

Eastern Asia has displayed an impressive performance in its sanitation development; *sanitation coverage increased from 27 per cent in 1990 to 67 per cent in 2011 – 626 million people gained access to improved sanitation facilities over 21 years* (United Nations 2013, 48). Progress in Sub-Saharan Africa and Oceania had been below substandard; sanitation coverage in 1990 was at 26 per cent and has increased by an unpretentious 30 per cent in 2011. A lot more needs to be done in the latter regions in order to meet the MDG target, which will mean *extending sanitation services to an average of 660,000 people a day, every day, between 2011 and 2015* (United Nations 2013, 48).

Figure 4 Proportion of population by sanitation practices, 1990 and 2011 (%)

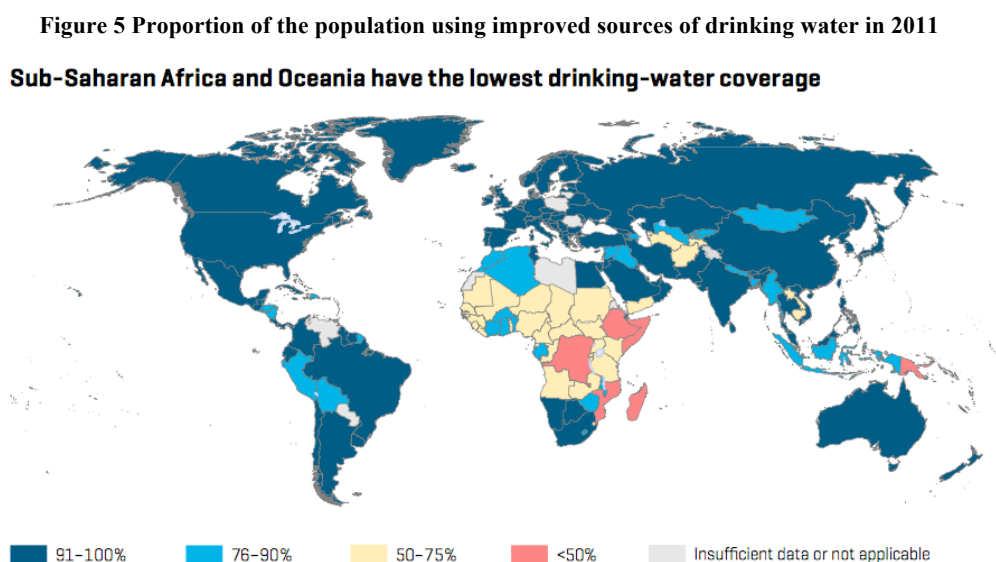


Source (United Nations 2013, 48)

Globally target 7C has been met but as depicted in the latter graph, regionally the MDGs have been everything but impressive. In both cases of access and availability to sanitation services and water coverage, Sub-Sahara Africa had performed below international standard. A closer in-depth look into SSA country performance and the elusiveness in meeting the MDG will be covered in the next section.

6.2 Target 7C in Sub-Saharan Africa

According to empirical research made by the WHO, target 7C *on halving the proportion of people without access to safe drinking water and basic sanitation*, had been globally met and excelled beyond the envisioned 88 per cent by one percentage point (United Nations Economic Commission for Africa 2013, 12). However, this does not account for the African continent where more than 40 per cent of the world's population without access to drinking water is in Africa (United Nations Economic Commission for Africa 2013, 12). And based on current trends, Africa seems unlikely to reach the MDGs specified 75 per cent of access to water and sanitation (cf. Banerjee, et al. 2008, 9). As illustrated in the graph of 2011, the whole of Sub-Sahara Africa has a 50-75 per cent improvement in its population's gaining access to improved sources of drinking water. A mere number considering the MDG deadline with in view.



Source (Banerjee, et al. 2008, 1)

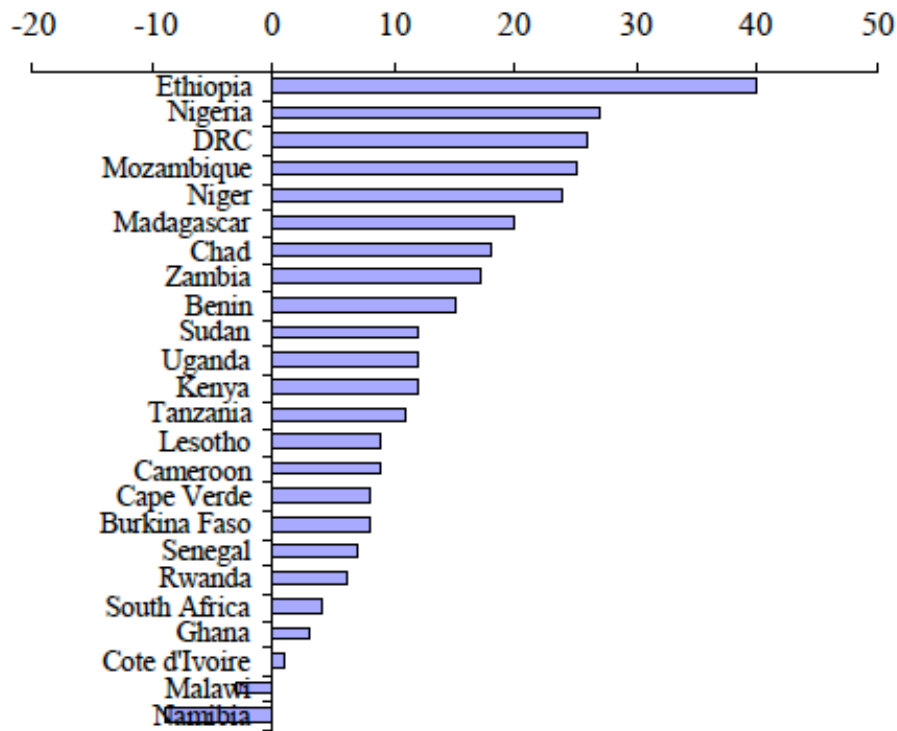
According to the 2013 MDG report, Africa's weak performance in improving water provision is due to a series of hindering factors, which conclude to *political instability, the increasing number of refugees [as well as the] growing populations putting pressure on the available resources, [furthermore], Africa's general lack of technology [which is] needs to improve water and sanitation. Where these technologies exist, they do not trickle down to the many rural areas that would benefit from them [of which,] women and girls are the most affected, because they bear the primary responsibility of fetching water, taking up a lot of time that could be used more productively* (United Nations 2013, 83).

According to the Joint Monitoring Program, a monitoring program sponsored by the World Health Organisation (WHO) and the United Nations Children Fund (UNICEF) tracking data on improvements and peoples access to WSS, have evaluated that people without access to water have increased by 23 per cent since the 1990 up till 2004, and looking at the 24 Sub-Saharan countries, few countries might even achieve the MDG (cf. Banerjee, et al. 2008, 1). It is difficult to summarize the whole of Sub-Sahara Africa water sector development because there are several paths to success. Although all SSA countries under went a water sector reformation, some had performed better than others (cf. Banerjee, et al. 2008, 2).

But contrary to what might be expected, none of these countries performs systematically well, either on efficiency of utilities, allocation of public spending, or quality of institutional reforms. In most cases several, though by no means all, of these factors are present; and the factors present differ from case to case. (Banerjee, et al. 2008, XVI)

Malawi and Namibia for instance have already met the goals and are closely followed by Cote d'Ivoire; a country successfully expanding its access to water and among the seven countries growing 3 per cent annually in water coverage; all that in spite of its low spending and weak regulation and reform systems. On the other hand, countries such as Ethiopia, Nigeria and the Dominican Republic have shown to be the weakest performers and are globally lagging behind in being a successful MDG abiding country. For the latter countries, to still meet the requirements by 2015 *significant efforts are required to attract financing, improve utility performance, ensure better sector coordination, and implement sector reforms* (Banerjee, et al. 2008, 1).

Figure 6 The MDG Gap



Source: www.childinfo.org.

Note: * MDG gap = difference between the Millennium Development Goals 2015 target, and 2004 rates of access to improved water.

Source (Banerjee, et al. 2008, 2)

In sight of the pre MDG 2015 resolution, progress reports from a wide range of organisations had been spurring out of every corner of the globe, highlighting current realities. In the process of meeting the MDG by 2015, public sector reformation and privatization was an ambitious and unprecedented approach. However, whether or whether not this approach was effective in reducing poverty is questionable and will be discussed in the following chapter.

7. CHAPTER

PRIVATIZATION IN SUB SAHARA AFRICA

Kate Bayliss and Terry Mckinely, who collaboratively published a UNDP supported book titled *Privatization and alternative Public sector Reform in Sub-Saharan Africa*, summarized on the whole that the privatization spree in post independent SSA, especially over water services, *has been a widespread failure [which has contrarily] hampered progress on the MDGs for both water and sanitation* (McKinley & Bayliss 2007, 1). According to both authors, the count for this stagnant and relative ineffectiveness of privatization approach, especially in SSA, was the consequence of absence and unwillingness of (foreign) private investors to invest in economically weak regions as such. Furthermore, *the focus of investors on cost recovery has not promoted social objectives, such as reducing poverty and promoting equity* (McKinley & Bayliss 2007, 1).

In general, the privatization debate surging in developing countries is of very complex matter, which practice, and the exact purpose is not quite clear. Osman Suliman and Ghirmay Ghebreysus question the determinants for privatization in their paper, *Determinants of Privatisation in Selected Sub-Saharan African Countries: Is Privatisation Politically Induced?* Indicating that *[t]here is no clear consensus among governments, international organisations, and academicians as to what exactly is the purpose of privatisation* (Suliman & Ghebreysus 2001, 33). The author's reason with two possible aspects that in their point of view justify privatization methods;

While African governments, the IMF, and the World Bank (donors) seem to target mainly stabilisation as an imperative of public finance problems with efficiency as a secondary axiomatic belief, much of the academic literature emphasises the efficiency and reversal of price distortions as gains of privatisation (Suliman & Ghebreysus 2001, 33).

Privatization in sub-Saharan Africa has been challenging due to conflicting interests and an inclination towards power relations; on the one hand its was strongly de-emphasized by African authorities because of the devolution of power, and on the other hand it was strongly encouraged by donors, who resorted to neoclassical practices of decentralization of administrative, political and fiscal responsibility.

7.1 Impelled privatization in SSA

In 2005, the OECD development centre published a policy insight no. 14, *Privatization: a Challenge for sub-Saharan Africa*, illustrating Sub-Saharan Africa's privatization challenges. The trend towards utility provision was the answer to the 1980s debt crisis, which in the interim was managed by the state – state owned enterprises (SOEs). However SOEs failed to allocate public resources effectively as the consequence of several factors prevailing in developing countries, issues such as corruption, mismanagement of public resources or even debt. The crisis urged donor countries lobbying for the development of more efficient public sectors, which slowly up till the 1990s evolved to the mass public utility reformation schemes that were mostly linked to the heavy structural adjustment programmes in developing countries. Furthermore, other causes such as heavy absences of public budgets eventually invited private firms into the public sector, as a means to subjugate SSA persisting poor performance.

Since the mid 1980s and the 1990s approximately thirty-eight Sub-Saharan countries followed the “decentralization pathway” pressured by Bretton Woods institution as a means to improve governance and the delivery of its services (cf. OECD 2004, 9). Since most of the countries lacked the monetary resources to invest into its own public infrastructure, most of the funding was made available by several technocratic institutions such as the World Bank, The International Monetary Fund (IMF) and to some extent The United Nations. However, these aid funds or grants were often replete with a list of conditionalities countries needed to fulfil in order to receive payments. And mostly these conditionalities, under the umbrella of democratization, demanded countries to politically liberalize; to decentralize its fiscal institution as well as to decentralize its local governmental structures (cf. Suliman & Ghebreysus 2001, 37).

Most of SSA countries underwent the reformation spree, and although countries adopted the various decentralization patterns mentioned above, country performance varied and was somewhat erratic. It is presumed that the degree of decentralization inevitably has a positive impact on a country's development performance, whilst others believe in the volatility of development. In most of the countries development had ossified, only a few countries did excel in their performance such as South Africa, but more of that in another chapter (cf. Ndegwa 2002, 22). According to the OECD research paper, the World Bank and the IMF have been fervent supporters in promoting privatization programmes.

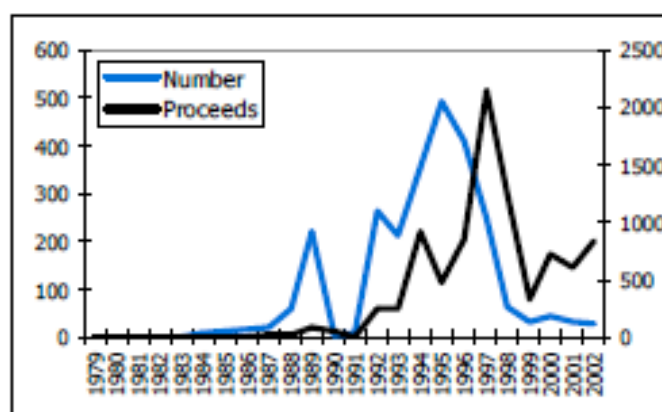
[B]y the end of the 1980s a majority of African countries had received World Bank assistance for privatisation programmes and 67 per cent of all adjustments lending involved public enterprise reform [by] 1998, 34 African countries were under World Bank financing agreements that involved the privatization process. (OECD 2004, 27)

The adoption of Structural Adjustment Programmes, which privatization was its token, had been a prevalent macroeconomic stability mechanism in stimulating weak economies. However, the discourse of SAP and privatization had been vehemently denounced by developing nations; especially post-independent African countries, who claim that these auspicious practices resembled *post-colonial international economy and not merely an economic program* (Suliman & Ghebreysus 2001, 37). Another critical question was *where does actual power [reside], where is responsibility anchored, and where does effectiveness obtain yields findings that underscore the continued dominance of the centralized state* (Ndegwa 2002, 22).

In general the implementation of privatization reforms had been slow and tedious, and this is primarily on the account of the lack of capital markets and a deregulated; plus corrupt financial sector. Private investors saw no long-term profits in full-scale privatization. In total Sub-Saharan Africa had only received a mere 4 per cent of global private investment to develop its utility infrastructure. The 1980s showed an upward development but reached its pinnacle in 1997, and from then onwards, progress ended up in stalemate (cf. OECD 2004, 36).

OECD has recorded 2535 privatisation transactions in sub-Saharan Africa by 2002. French-speaking countries (Côte d'Ivoire, Madagascar, Mali, Niger and Togo) were the first to carry them out, joined in the late 1980s, by some Portuguese and English-speaking countries (Mozambique, Nigeria and Ghana). The number of privatisations peaked at 495 in 1995. The total sale value for the region by the end of 2002 is estimated at \$8.8 billion, against \$46 billion in transition economies and \$177 billion in Latin America and the Caribbean. Lower proceeds reflect the poor financial condition of the companies listed for privatisation. (Lucia 2005, 1)

Figure 7 Annual Number of Privatization and Proceeds up to 2002



Source (OECD 2004, 36)

The OECD report has also provided a database, which is based on World Bank African Privatization Database, covering 48 Sub-Saharan African countries on their starting date of privatization; actual and pending privatisation transactions, total number of privatization and total proceed received starting from 1979 -2002 (*of which ten had not yet started a privatisation programme at the time of the survey*) (OECD 2004, 23). Côte d'Ivoire was among the first countries to privatize in 1979 and South Africa received the highest proceeds of \$ 2510.1 million.

Table 4 Privatizations in 48 African Countries by Date, Number and Proceeds

Region	Country	Date of first privatisation	Total number of privatisations up to 2002	Pending privatisations as of March 2003	Total proceeds (\$ million)
Central Africa	Burundi	1988	38	2	19.8
	Cameroon	1994	29	10	227.4
	Central African Rep.	1986	25	18	18.5
	Chad	1993	35	5	9.9
	Congo	1992	66	59	0
	Congo Dem. Rep.	1987	21		52.5
	Equatorial Guinea	None			
	Gabon	1997	8	14	65.2
	Rwanda	1997	4	4	4.2
	São Tomé & Príncipe	1989	6		3.4
Eastern Africa	Comoros	None			
	Djibouti	None			
	Eritrea	None			
	Ethiopia	1995	10	1	203.3
	Kenya	1992	187	4	248.9
	Madagascar	1984	65	49	49.7
	Mauritius	2000	1		261
	Seychelles	None	None		
	Somalia	None			
	Sudan	1992	33	8	111.4
Western Africa	Tanzania	1992	202	2	554.3
	Uganda	1991	106	9	228.5
	Benin	1986	37	10	43.8
	Burkina Faso	1992	28		26.1
	Cape Verde	1993	41	17	101.8
	Côte d'Ivoire	1979 ^a	80	2	423.6
	Gambia	1987	19	3	13.6
	Ghana	1989	180		946.2
	Guinea	1985	109	13	80.7
	Guinea-Bissau	1989	23	8	5.6
Southern Africa	Liberia	None			
	Mali	1979	71	17	90.9
	Mauritania	1989	35	2	56.1
	Niger	1983	28	6	25.2
	Nigeria	1989	63	12	672.4
	Senegal	1986	36	14	217.1
	Sierra Leone	1993	8		0
	Togo	1984	60	19	103.9
	Angola	1996	56	1	33
	Botswana	None			
	Lesotho	1995	10		37.2
	Malawi	1989	46	12	57
	Mozambique	1986	487	7	324.1
	Namibia	None			
	South Africa	1996	14	2	2 510.1
	Swaziland	None	79	103.9	
	Zambia	1992	255	3	717.5
	Zimbabwe	1994	13	7	272.6
Total			2 535	332	8 816.2

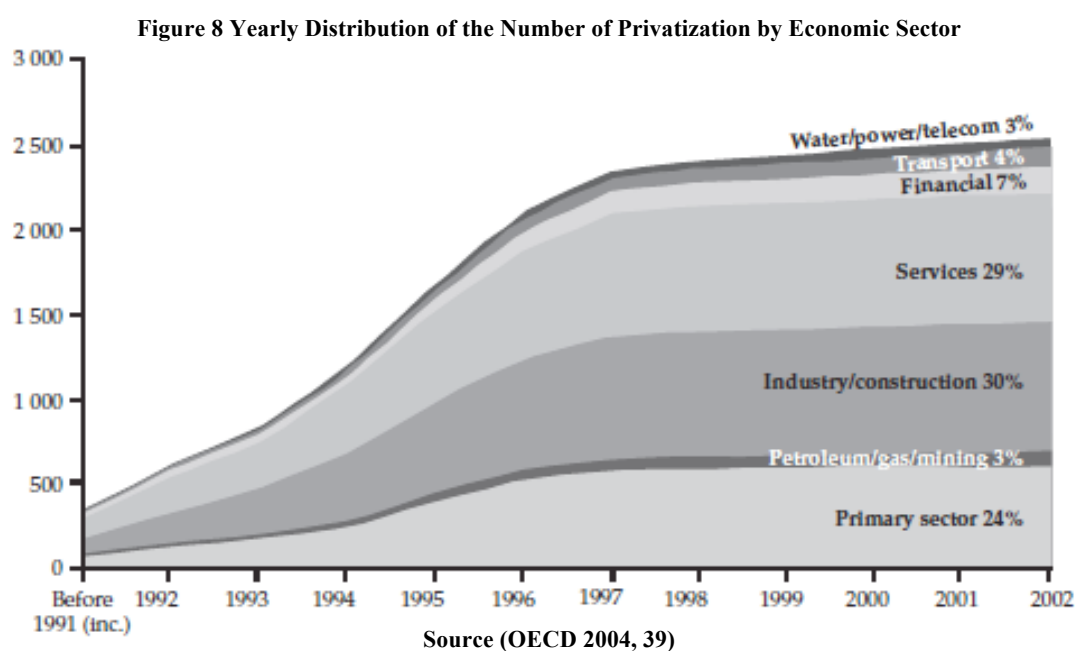
a. The first privatisation in Côte d'Ivoire actually took place in 1960, but the database starts only in 1979.

Source (OECD 2004, 24)

7.2 Utility Privatization in SSA

The majority of privatisation transaction had been prevalent in the competitive sector; *Transactions in the primary sector (agriculture, agro-industry, forestry and fishery), in manufacturing and construction, and in tradable services (e.g. tourism and trade) account for nearly 70 per cent of the total number of privatisations recorded to end 2002* (OECD, 2004, 38). This sectorial imbalance was the result dating back to Africa's post independence phase where pro-active development strategies; "big push policies", were adopted to develop a competitive industrial sector, which responded to the whims of a "liberated" market. Enterprises in these sectors were relatively small but abundant, competing for market shares. Nonetheless, it was evident in the 1980s, that this approach only led the accumulation of public debt stocks with little industrial development (cf. OECD 2004, 37).

Despite the numerous privatizations in the competitive sectors, yields fell out relatively low as anticipated. The privatization in the utility / strategic sector had been more efficient despite very slow starting process *in terms of numbers*, but it brought high returns (OECD 2004, 29).



Little attention was given to network utilities before 2002 (water, power, telecom, transport) accounting to only 7 per cent of the *yearly distribution of the number of privatisations by economic sector* but after 2002 utility transactions increased to 30 per cent of total privatisation. The reason *for the low percentage is that services in these sectors [were] usually provided by a unique*

incumbent operating as a monopoly (OECD 2004, 40). And monopolies are always a matter of social concern, especially when dealing with services and products that are inevitable for the livelihoods of individuals.

Utilities produce strategic goods and services that are not only critical to the consumption of individuals, but also enter the national production process as inputs. Utilities are large entities, organised as monopolies owing to the size of the necessary infrastructure (in the water, power and fixed-line telephony sectors), which entails high sunk costs and the possibility of economies of scale (OECD 2004, 40).

Public ownership [which is the condition where a government holds 51 per cent of an enterprise] *was at first seen as the best solution to avoid monopolistic pricing while resolving market failures and ensuring social welfare* (OECD 2004, 40). However this approach was condoned by many Sub-Saharan African countries, since empirical evidence had shown that the implementation of public ownership had led to *unproductive, inefficient and overstaffed public enterprises, characterised by bad management, under-investment and corruption* (OECD 2004, 40). *Corrupt and “clientelist” behaviour* is impeding development regardless of which sector or dimension. These are among the severe issues, where governments in developing countries especially Sub-Saharan African countries need to resolve. Evidence had shown that corrupt behaviour at a higher government tier *has made it difficult to implement cost-covering prices and to undertake substantial investment. The result has been a considerable drain on fiscal balances and a decline in social welfare (through inadequate access to utilities, amplified by deficient and limited infrastructure, and through poor allocation of public expenditure)* (OECD 2004, 40). On the basis of this condition, the Bretton Woods institutions has more then “suggested” privatization as part of the pressured structural adjustment programmes as a regulative and efficient mode for countries, which suffer under this predicament. The privatization of utilities is a complex matter and needs due diligence and special privatization methods.

7.3 Reforming the water sector in Africa

The approach to water supply and sanitation has become a global governance issue, seeking new approaches and learning from past experiences to solve the current water endemic (cf. Hoekstra , et al. 2011). Since freshwater is gradually transforming into a non substitutable global resource, driven by “*growing international trade in water-intensive commodities [...] such as crop and livestock products, natural fibres and bio-energy*” (Hoekstra , et al. 2011) it is important to find measures that preserve and sustain water since *the sector as a whole will need to justify increasing spending on water supply for domestic use against competing uses in other sectors, including agriculture* (Nicol 1999, 3).

The first UN water decade (1981-1990) was a global engagement that brought attention to the importance for clean water and sanitation. Resulting out of this new recognition, important *international institutions, including the Collaborative Council, the Global Water Partnership and, most recently, the World Water Council* (Nicol, 1999, 3) have all contributed to the dissemination towards a water sector reformation. This new wave of “thinking over water” could indirectly condition donor attitudes and positively affect the relationship NGOs have with the private sector, communities or even governments.

It was believed that water sector reformation “was the cure for the aching”, despite the fact that *[water] sector reforms are considered critical in creating the appropriate institutional structure for improved service delivery, [b]enefits accrue in the long term, while costs are immediate* (Banerjee, et al. 2008, 20). Reforms in general are strenuous to implement *affecting a wide group of stakeholders*, especially in the water sector in the form of privatization, which have caused global conflicts, *including the large-scale protests in [countries such as] Cochabamba, Bolivia, in 2000* (Banerjee, et al. 2008, 20).

The reformation progress in Africa was constitutive in establishing an environment of transparency and accountability for the consumer as well as improving water utility infrastructures in terms of water access and availability. The next section will discuss the four principles essential for the reformation of Africa’s urban water sector: *(a) legislation, (b) restructuring, (c) policy oversight, and (d) private sector involvement*

Each is composed of indicators, detailed in Annex A.2. Each subindex is expressed as a percentage of positive responses to the binary questions to total number of indicators. The overall urban reform index is an average of these four subindexes, and each has the same weighting (Banerjee, et al. 2008, 22-21).

Reformation policies in Africa are still in its infancy. Nonetheless, several Sub-Saharan countries have made positive outcomes within the last decade, except for four countries; *Chad, the Democratic Republic of Congo, Rwanda, and Nigeria have not yet embraced reform* (Banerjee, et al. 2008, 21). According to the AICD reform index score all four countries are below 50% in their reform activities.

The reformation of water provisions can only be as efficient and transparent as its supporting regulatory framework. The utilization of water policies in accordance to institutional and governmental targets are key factors in the reformation of the water sector. Côte d'Ivoire was among the first countries to pass a water law in 1973 and over the last decade several other countries followed suite. *Now only five countries lack a water policy, and in two of these a draft is in progress. Chad and the Democratic Republic of Congo are the only countries that neither have a water policy nor have passed any new sector legislation in the past ten years* (Banerjee, et al. 2008, 21)

According to the AICD methodological research one of the most prevalent reform methods are corporatization followed by the enactment of private sector participation laws. However, there is a discrepancy between the 83 per cent of Sub-Saharan African countries concurring towards a legalization of private participation with an actual 63 per cent in the realisation or attraction of private participation in any of the three most common utilities. Among those 83 per cent in favour of public private utility operations, less than 50 per cent of the *private providers responded by taking part in management contracts and concessions, and only 5 per cent have private providers who invested in water sectors* (Banerjee, et al. 2008, 21). One shocking finding is that ownership in the water sector accounts to only one per cent, however this nugatory value could be reasoned with the fact that the integration of private entities into the public domain is a relative new approach compared to other reform methods. Nevertheless, there are few paragon countries that have successfully included private participation into its water sector at an early stage, such as *the private contracts in Côte d'Ivoire and the Democratic Republic of Congo [which] became operational in 1960 and 1968* (Banerjee, et al. 2008, 22).

One of Africa's most outstanding progresses was the improvement of its independent policy oversight regulators, operative in multi- dimension, *such as tariff approval, investment plans, technical standards, regulation monitoring, and dispute arbitration* [, which are all] *relatively well defined in Africa* (Banerjee, et al. 2008, 22). Sixty eight per cent of the countries understood the importance for economic regulations, in further sense the allocation of institutional responsibility *to bodies other than the line ministries, such as special entities within the ministries, interministerial committees, or regulators* (Banerjee, et al. 2008, 22).

Mozambique, Niger, Sudan, Kenya, Côte d'Ivoire, Ghana, Tanzania, Senegal, Uganda, and Madagascar, have embraced 70 per cent of the reform measures. Meanwhile, countries such as Chad, Malawi, Namibia, and the Democratic Republic of Congo have achieved less than 40 per cent on the total reform score [...] Chad is the furthest behind in implementing water sector reforms; the only steps it has carried out so far are STEE corporatization and a relatively robust policy oversight structure with respect to tariff approval and regulation monitoring (Banerjee, et al. 2008, 22).

There were improvements in the restructuring of relatively inefficient utilities; mostly because utilities offer more than one services such as water provision and waste management. An approach, which had been somewhat stagnant, albeit the efforts invested into the regulatory frameworks, still makes it hard for utilities to restructure. The issues with water utilities in Sub-Saharan Africa are that some providers *are responsible for both water and sanitation—and even energy—while some handle only water distribution. Unbundling bulk-water generation and distribution is still a rarity in Africa [only] five countries—Burkina Faso, Namibia, Niger, South Africa, and Uganda—have separated bulk water production from distribution function* (Banerjee, et al. 2008, 19-22). Niger is a prime example in the separation of its utilities and has reached 80 per cent on the restructuring index.

In 2000, the water company SNE in Niger was separated into the asset-holding company Société de Patrimoine des Eaux du Niger (SPEN) and a private operator Société de Exploitation des Eaux du Niger (SEEN) responsible for production, transmission, and distribution in the urban areas. Of shares in the lease contract, 51 per cent are held by international operators, 34 per cent by Nigerian local investors, 10 per cent by employees, and 5 per cent by the government. The contract governs the production and distribution of water in urban areas for a period of 10 years (Banerjee, et al. 2008, 22).

Regardless of two countries (Chad, Malawi,) the rest of the SSA have achieved measurable reformation progress ranging from 40-80 per cent in the urban reform index. However, the reform index alone just indicates general reform measures taken. In correlation with its sub-index, which highlights a countries progressing in the reformation in their water sector, we can ascertain the general improvements of reformation of the water sector.

For instance, Benin scores very high on legislation and policy oversight but very low on restructuring and private sector involvement, and Rwanda scores high on restructuring and private sector involvement but low on policy oversight and legislation. Côte d'Ivoire, Kenya, Mozambique, Sudan, Tanzania, and Uganda have realized more than 50 per cent in each of the subindex scores, suggesting a balanced evolution of the reform process (Banerjee, et al. 2008, 22).

7.4 Water service delivery in urban Africa

Africa's expansion of water services to meet the people's demands and needs has been a challenging task, and looking at the present state in fulfilling the MDGs requirements looks somewhat uncertain. Africa's water utility improvement cannot cope with the *rapid population growth and rampant urbanization*, which has severe constrains in the development of urban water services *such as piped networks and stand posts* (Banerjee, et al. 2008, 10). Series of regional disparities have been impeding the expansion of water coverage, substantially the agglomeration of refugees in the peri-urban slum neighbourhoods.

For the 24 Sub-Saharan Africa countries [the] total population grew at an annual average of 2.5 per cent, with urban and slum population growth almost double that, experiencing 4.39 per cent and 4.43 per cent annual growth rates, respectively (Banerjee, et al. 2008, 10).

In total there are five prevalent water utility types servicing in Africa: vendors; surface water; wells and boreholes; stand posts and piped water, with the later being the most used modality to supply water followed by stand posts. However, in both water utilities, water coverage has shown a relative decline over the last 15 years.

Table 5 Evolution of urban water supply

	Piped water (%)	Standposts (%)	Wells and boreholes (%)	Surface water (%)	Vendors (%)
1990–1995	50	29	20	6	3
1996–2000	43	25	21	5	2
2001–2005	39	24	24	7	4

Source (Banerjee, Skilling, Foster, Briceño-Garmendia, Morella, & Chfadi 2008, 10)

In the mid–1990s, more than 40 per cent of Africans had piped supply; by the early 2000s, this coverage had declined to 39 per cent. The situation with standposts is similar, with a decline from 29 to 24 per cent over the past 15 years. This decline in improved water sources is made up by a rise in coverage of wells and boreholes and slight increases in surface water and vendor coverage in urban areas (Banerjee, et al. 2008, 10)

As already addressed the two most common sources have declined but consequently the access of wells and boreholes, surface water and vendors have increased. People who are burdened with not being in the range within any of these services are depended on several of paid and rarely subsidies free alternatives (cf. Banerjee, et al. 2008, 10). The African infrastructure country diagnostic identified three country types, based on their water access patterns at urban level (cf. Banerjee, et al. 2008, 10):

Country type 1: Urban population depending on wells and boreholes and other improved utilities as their primary water source. (e.g. Mali, Nigeria, and Chad).

Country type 2: Urban population depending on standpoints (e.g. Burkina Faso, the Central African Republic, Cameroon, Ghana, the Democratic Republic of Congo, Guinea, Madagascar, Malawi, Mozambique, Niger, Rwanda, Tanzania, Uganda, and Sudan).

Country type 3: Urban population depending on piped water (e.g. Benin, Côte d'Ivoire, Kenya, Namibia, Comoros, the Republic of Congo, Ethiopia, Gabon, Lesotho, Mauritania, Senegal, South Africa, Togo, Zambia, and Zimbabwe) (Banerjee, et al. 2008, 10).

So, if we translate these countries and put them into perspective with the MDG gap graph country listing; the provision modality does not determine the level of improved water access. Each country improves at a different rate and with a different modality.

7.4.1 Organizing urban water supply and sanitation

Africa's endeavour in sustaining its water supply and sanitation sector requires a set of stringent regulatory and governance frameworks at a national and service provider level. This is crucial in the sense that with the absence of regulatory set of frameworks, private water providers; most likely given to their monopolistic nature, will act towards profit maximization at the expense of the poor. A set of appropriate *policy, legal and regulatory frameworks* (Banerjee, et al. 2008, 19) needs to be institutionalized, which will guarantee that the providers operate in accordance to international as well as regional and local guidelines in the provision of water, and fix affordable price for all. The government's role predominantly is to set the rules, the provision standards were as the actual service and provision of water is bestowed on to a *range of providers [,] which include municipal agencies, public-private partnerships, and corporate utilities*. (Banerjee, et al. 2008, 19).

[F]rameworks [...] clearly [allocate] authority and resources commensurate with assigned responsibilities [and they] should be complementary and mutually reinforcing, but they should also each be sufficiently defined—and transparent—to inspire confidence in a range of investors and stakeholders, including consumers (who invest through connection fees and tariffs)[...] Institutional structures range from national-level utilities responsible for entire countries to those with limited jurisdictions (Banerjee, et al. 2008, 19).

In the process of organizing Sub-Saharan countries water sectors, there has not been a consistent regimented set of policy arrangements outlining a sustainable approach to water provision. However, the devolution of managerial power; in further sense, the transfer of authority and responsibility from a governmental tier to a subnational governmental unit has been a prevalent strategy in many countries to abridge the gap between regulatory entities, providers and consumers. Developing an environment of greater accountability and responsiveness *where the need for infrastructure can be more readily identified and the conditions for expansion are better known* (Banerjee, et al. 2008, 19).

SSA past water performance can be categorized into two groups. One group consisting of a total of nine countries such as Niger, Uganda, and Tanzania etc. believe that urban water provision is central government responsibility (cf. Banerjee, et al. 2008, 20). The second group believes that water supply should be considered a local responsibility; countries such as Ethiopia, Kenya and South Africa had been in a decentralization process and *report about 150 suppliers operating in*

the service area (Banerjee, et al. 2008, 20). The next section will outline how several countries performed.

7.5 Country performance

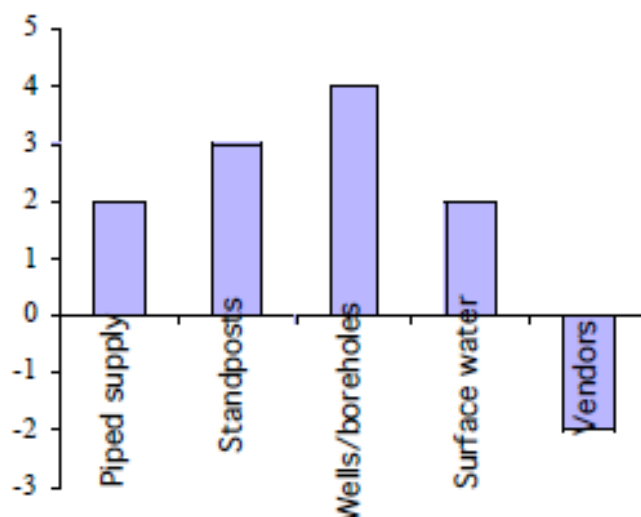
Despite the fact that Africa as a continent is off track in realizing the MDG targets revolving around water and sanitation, it is worth mentioning that several sub-Saharan countries have made pre-eminent gains in the expansion of coverage since the 1990s. Although improvements have not been sufficient in meeting international standards, it is cardinal to analyse the *successful cases to promote a deeper analysis of their experience and a distillation of lessons for other countries in the region* (Banerjee, et al. 2008, 13).

The Africa Infrastructure Country Diagnostic has weighted two factors for measuring the growth of coverage of different service forms:

1. Annual average growth rate (AAGR) in population covered by each service in the 18 countries for which coverage information is available for 1995–2000 and 2001–5 (Banerjee, et al. 2008, 13).

Over that past few decades wells and boreholes, followed by stand posts, have accounted for the highest AAGR in water coverage. As for the provision through pipelines and surface water, both had a fairly equal growth rate. In the last decades, the development of pipeline and surface water networks were not pertinent in both populous countries *such as Kenya, Nigeria, Tanzania, and Cameroon* [and] *smaller countries such as Rwanda, Zambia, and Mozambique* (Banerjee, et al. 2008, 13) In both cases piped water supply had a *negative or zero growth rate*; the process of laying pipelines across a country is extremely cost intensive as well as establishing a network that will provide the whole of Nigeria with potable water extracted from surface water. *On the other hand, countries such as Ethiopia, Burkina Faso, Lesotho, and Mali have experienced piped water AAGR of more than 4 per cent since 1995. Ethiopia's performance is particularly laudable, since it is the furthest from meeting its MDG goal* (Banerjee, et al. 2008, 14).

Figure 9 Annual average growth rates of water alternatives



Source (Banerjee, Skilling, Foster, Briceño-Garmendia, Morella, & Chfadi 2008, 14)

A negative or zero growth rate in one or two utilities in a country can be relatively compensated with another utility alternatives. *Nigeria [for example] has witnessed negative growth in both piped supply and standposts, [however] this gap has been filled by the relatively high growth of wells, boreholes, and surface water.* (Banerjee, et al. 2008, 14). In other words the AAGR gives only information of the development of different utilities in a country and says little about people's access to services. However, the next index reveals more about a country's development over the population's access to water utilities.

2. Annualized change in coverage (ACC) of each service—the number of people that on average gain coverage to each water modality every year, divided by the population in the end year; includes the 24 countries for which information is available for any two periods out of 1990–95, 1995–2000, and 2001–05. (Banerjee, et al. 2008, 15)

The table below shows the annual change in coverage by modality and country. Ethiopia has had a laudable performance in its annual gain in coverage over the last few decades and especially *stands out as having the largest average annual gain on piped water coverage, adding almost 5 per cent of its population each year, immediately followed by Côte d'Ivoire.* By contrast, *Tanzania, Nigeria, Rwanda, the Democratic Republic of Congo, Zambia, and Malawi show declining coverage between the late 1990s and the early 2000s.* (Banerjee, et al. 2008, 15) Uganda had extremely remarkable growth in both its public standpoints and surface water utilities. Nigeria has managed to accelerate a close 4 per cent annual growth in its wells and boreholes, however all other services had shown a severe decline.

In regards to the annual change in public standpost coverage, Uganda has managed rapid expansion, closely followed by Burkina Faso and Tanzania. Burkina Faso had outstandingly improved its coverage in both piped water and standpost. Nigeria, Côte d'Ivoire, and Lesotho access to standpost did not thrive at all, in fact it even declined. In terms of wells and boreholes Nigeria is improving its access by 4 per cent annually. *Another way to assess performance is to point out which countries have made the most rapid reduction in their populations' reliance on surface water. From this angle, the progress is less dramatic* (Banerjee, et al. 2008, 33). A majority of SSA countries have managed to reduce the reliance on surface water, moving annually 2 per cent of the population however more on this in the following table.

Table 6 Annualized change in coverage by modality and by country, 1995 -2005 (%)

Piped water		Public standposts		Wells/boreholes		Surface water	
Ethiopia	4.77	Uganda	4.67	Nigeria	3.99	Uganda	-1.98
Côte d'Ivoire	3.81	Burkina Faso	4.00	Malawi	3.10	Ethiopia	-1.08
Benin	3.58	Tanzania	3.91	Rwanda	3.03	Lesotho	-0.66
Burkina Faso	3.40	Rwanda	3.67	Ghana	2.65	Madagascar	-0.41
Mali	3.00	Malawi	3.01	Mozambique	2.31	Ghana	-0.21
Zimbabwe	2.93	Congo, DR	2.56	Uganda	2.01	Niger	-0.12
Lesotho	2.69	Guinea	2.10	Kenya	1.49	Namibia	-0.08
Senegal	2.28	Chad	2.07	Tanzania	1.37	Côte d'Ivoire	-0.04
Namibia	1.75	Madagascar	2.03	Cameroon	0.90	Senegal	-0.03
Chad	1.56	Cameroon	1.34	Lesotho	0.63	Zimbabwe	0.00
Niger	1.49	Mali	1.25	Zambia	0.42	Zambia	0.01
Uganda	0.85	Namibia	1.15	Côte d'Ivoire	0.36	Malawi	0.10
Guinea	0.47	Zambia	1.09	Madagascar	0.33	Burkina Faso	0.13
Madagascar	0.39	Niger	0.93	Niger	0.28	Guinea	0.16
Kenya	0.03	Benin	0.80	Guinea	0.10	Chad	0.27
Cameroon	-0.01	Mozambique	0.80	Zimbabwe	-0.19	Mali	0.28
Zambia	-0.05	Ghana	0.60	Namibia	-0.21	Benin	0.30
Mozambique	-0.12	Zimbabwe	0.46	Ethiopia	-0.23	Kenya	0.35
Ghana	-0.18	Kenya	-0.12	Senegal	-0.25	Mozambique	0.39
Congo, Dem. Rep. of	-0.31	Ethiopia	-0.27	Chad	-0.34	Tanzania	0.70
Malawi	-0.64	Senegal	-0.42	Mali	-0.37	Cameroon	0.72
Rwanda	-0.66	Lesotho	-0.47	Congo, DR	-0.67	Nigeria	1.06
Nigeria	-1.37	Côte d'Ivoire	-0.52	Burkina Faso	-1.01	Rwanda	3.15
Tanzania	-3.50	Nigeria	-0.63	Benin	-1.09	Congo, DR	3.43

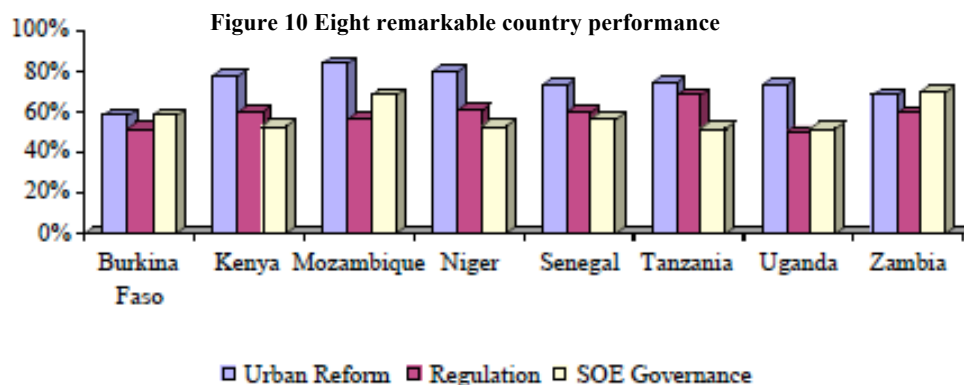
Source (Banerjee, Skilling, Foster, Briceño-Garmendia, Morella, & Chfadi 2008, 16)

All in all, Sub-Saharan Africa has made unpretentious advancement in its expansion of water coverage and access to several of utilities. Most of its effort was put into the development of

pipelines closely followed by standposts, wells and boreholes. Although SSA is off track in meeting the MDG on water, it has still made substantial development in its urban water sector. A handful of countries *have made far-reaching progress while others are still grappling with the initial steps. Mozambique, Niger, Sudan, and Kenya are in the former category, while the Democratic Republic of Congo, Namibia, Malawi, and Chad are still far behind* (Banerjee, et al. 2008, 33).

SSA sector reformation process has made remarkable progress in institutionalizing regulatory frameworks, which *strengthen the internal governance structure of the urban utilities; [laws] have been passed, regulatory agencies established, new companies have emerged and new players have entered the urban sector* (Banerjee, et al. 2008, 33). SSA transformation over the last decades had been characterized as the endeavour towards sustainability through the focus on raising *efficiency, cost recovery, and equity objectives* (Banerjee, et al. 2008, 33)

Burkina Faso, Kenya, Mozambique, Niger, Senegal, Tanzania, Uganda, and Zambia are remarkable performers that have progressed at a steady pace on different aspects of urban sector reform. These countries have developed a robust regulatory structure, a market oriented and accountable internal governance mechanism, and wide-ranging urban sector reforms (Banerjee, et al. 2008, 33)



Source (Banerjee, Skilling, Foster, Briceño-Garmendia, Morella, & Chfadi 2008, 34)

So far SSA's slow but remarkable progress has been outlined. Yet further critical concerns still need to be addressed, which will highlight SSA's low utility coverage rates over the last decades. The next chapter will assess the quality standards of services (cf. Banerjee, et al. 2008, 35)

7.6 Quality Standards of Services

Water coverage has increased in SSA, in some countries more than in others, but how have African water providers assessed quality standards of their services?

According to the African Infrastructure Country Diagnostic (AICD) evidence on SSA service quality has been hardly documented. *The only indicator available is the per centage of samples—taken from a water treatment plant—that pass the chlorine test. This provides some indication of the effectiveness of the treatment process but says nothing about the quality of water received at the tap* (Banerjee, et al. 2008, 43). Considering the fact that these “chlorine tests” are by no means conclusive in assessing the quality standards of water; yet these inappropriate tests have indirectly brought to light a relative discrepancy in utility performance between middle-income countries (MIC) and low-income countries (LIC). MICs have scored a near 100 per cent mark variable while, LIC around 83 per cent point. There had also been substantial differences regarding operating/service hours (cf. Banerjee, et al. 2008, 43).

[T]he weighted average value for the sample is close to 21 hours. But LICs provide, on average, five hours less service per day than MICs. The worst performance on continuity is found among the Central and Southern African utilities (excluding in MICs) which report 11 and 13 hours of service per day on average. While the average statistics are relatively good, there are 10 utilities in the sample that report continuity of 12 hours or less in countries such as the Democratic Republic of Congo, Ghana, Kenya, Madagascar, Mozambique, and Nigeria (Banerjee, et al. 2008, 43).

Another indicator that has been recorded were customer complains. These values are somewhat relative *since low levels of complaints could either indicate poor service or a poor system for recording complaints* (Banerjee, et al. 2008, 44). Nevertheless the differences between LICs and MICs have sustained, where in the latter countries almost one in five consumers lodged *a complaint in the preceding year* (Banerjee, et al. 2008, 44)

There is still an institutional gap or more precisely a financial gap that institutions need to fill in order to improve its assessing and monitoring quality standards. SSA convergence to reach the MDGs is and had been dependent extensively on foreign aid. Before I dwell into the next section

of discussing future outlooks and the importance in financing MDGs past and present performance, it is crucial to evaluate the things that have been realized before discussing future needs. I find it important to highlight the prevalence of private participation in SSA urban water sector and how utilities have managed to fare with private participation.

7.7 Public Private Participation in the SSA urban water sector and sanitation

Public-Private partnership (PPP) had been a supportive instrument in general public sector reformation.

Under properly structured circumstances, a private partner introduces transparent responsibilities and accountability, new business practices, an output orientation, new technologies, access to capital, and improved efficiencies. Structuring the right partnership in the WSS sector, however, is difficult and involves creating an appropriate balance of authority with accountability, incentives with penalties, and social responsibility with corporate responsibility (Banerjee, et al. 2008, 32).

As already covered earlier in my paper, since the early 1990s a total of 23 SSA countries had carried out some form of PPP in their urban water sector. A majority *were management contracts with no investment requirement [there had also been] a limited number of concessions, [...] some contracts that require private investment [...] just one divestiture (of Electra in Cape Verde) and one Build-Operate-Transfer (BOT) contract (for a wastewater plant in Durban)* (Banerjee, et al. 2008, 32)

Table 7 Private investment in Sub-Saharan Africa, 1990-2005

Type	Number	Countries	Percentage multiutility	Percentage cancelled
Management contract	15	Chad, Congo, Dem. Rep. of, Gabon, Gambia, Ghana, Guinea-Bissau, Kenya, Madagascar, Mali, Mozambique, Rwanda, Sao Tome, South Africa, Uganda, Zambia	53	20
Lease contract	7	CAR, Gambia, Mozambique, Namibia, Niger, Senegal, South Africa, Tanzania	15	45
Concession contract	4	Comoros, Gabon, Mali, South Africa	75	50
BTO/BOO	1	South Africa	0	0
Divestiture	1	Cape Verde	100	0
Total	28	23	46	25

Source (Banerjee, Skilling, Foster, Briceño-Garmendia, Morella, & Chfadi 2008, 32)

Between 1990 till 2005 a total of 28 PPP transaction of 23 SSA countries had been passed, however with an overall high cancelling rate of 25 per cent. Concession contracts had the highest cancelation rate of 50 per cent followed by leases contracts with a cancelation rate of 45 per cent (cf. Banerjee, et al. 2008, 32). The most prevalent form of private participation were through management contracts, within afore mentioned time period a total of 15 transactions have passed with a 20 per cent cancelation rate. *In addition, there has been a tendency not to renew relatively short management contracts upon their expiration, let alone upgrade them to include greater private sector participation, as has sometimes been planned. As a result, the overall number of active private sector contracts on the continent has declined, from a peak of 16 in the early 2000s to only 10 today* (Banerjee, et al. 2008, 32).

Inviting the private sector to participate into the distribution and management of public resources has brought short and medium term performance trends. There is little to be said concerning long-term performance since the PPP in SSA is still in its infant phase. However, in terms of short to medium term impact, four variables exist that can assess PPP performance in its WSS:

These are: cost recovery (since prices are often adjusted in the run-up to private participation); collection efficiency (often the first focus of private management efforts); labor productivity (since the private sector typically has greater freedom to fire excess labor force); and [Nonrevenue water (NRW)] (another area where private management attention tends to focus, although typically one that takes longer to impact).
(Banerjee, et al. 2008, 32).

Due to the limited available data on key performance during the period before and during SSAs private participation performance in its WSS, it is hard to elucidate the level of efficiency since its inception. The AICD has managed to survey fifteen utilities that had some form of PPP experience, however from these fifteen utilities only three utilities had conclusive date (before and during PPP) of which a statistical comparison between country (cf. McKinley & Bayliss , 2007) performances could be drawn. Data was available from *Electrogaz (Rwanda), NWSC (Uganda), and SPEN (Niger)* [...] *a number of other cases—SDE (Senegal) and the Mozambican utilities—data were available only for the period of private participation, without the possibility of comparing long-term performance trends* (Banerjee, et al. 2008, 49). Concerning data on cost recovery and

collection efficiency little has been recorded by utilities prior to PPP.

But in the case of labor productivity and NRW, there is a discernible downward trend in many cases of private participation. Labor productivity appears to converge in the range of 5–10 employees per 1,000 connections; however, this is no better than the overall sample average of 5 employees per 1,000 connections. Nonrevenue water appears to converge in the 20–40 per cent range; but, once again, this is no better than the overall sample average of 30 per cent for NRW. The most impressive gains can be seen in the case of NWSC (Uganda)—also the utility with the longest time series of data—but most were made in the period prior to private participation. (Banerjee, et al. 2008, 49-50)

8. CHAPTER

AFRICA'S OUTSTANDING REQUIREMENTS TO MEET THE MDGS

The importance and the numerous positive externalities that arise out of the *welfare implication of safe drinking water sources* (Banerjee, et al. 2008, 54) cannot be reiterated enough. A few SSA countries have proved themselves in being able to cope with its current water epidemic; but only a small amount, whereas a majority still needs a lot more support. According to the Human Development Report of 2006, an estimated \$23.5 billion annually is needed to sustain universal water and sanitation coverage (cf. Banerjee, et al. 2008, 54). Since the 1990s, Africa's urban water sector has developed significantly; however in terms of meeting the MDGs Africa would need to put stark efforts into generating enormous outstanding financial resources; but only if access patterns are kept the same (cf. Ghosh Banerjee and Morella 2011, 191). *The possible and ideal way to increase resource availability—aside from continued dependence on public and overseas flows—would be to enhance utilities' financial viability and attract the international and local private sector using risk-mitigation and insurance instruments* (Banerjee, et al. 2008, 54) The following chapter will discuss Africa's current spending composition.

8.1 What has been invested?

According to World Bank statistics Africa's current spending addressed to its water supply and sanitation services; which is far from sufficient, is estimated at around \$7.9 billion annually or 1.2 per cent of its Gross Domestic Product (cf. Ghosh Banerjee and Morella 2011, 215). However, this calculation is only a relative estimation; due to the complexity of recording and tracing financial donor sources, an absolute spending amount had been difficult to determine. Among the numerous contributors to Africa's current WSS budget; there are three for Sub-Saharan Africa decisive financing resources: *the public sector, [the donor community], and households* (Ghosh Banerjee and Morella 2011, 217).

[S]tate-owned enterprises (SOEs) and extra budgetary funds—as well as external financing, a category that comprises official development assistance (ODA) from the member states of the Organisation for Economic Co-operation and Development (OECD)[have a 0.2 per cent of SSA GDP contribution], financiers from outside the OECD[have an equivalent contribution of a mere 0.03 per cent of SSA GDP], self-household financing[contribute

with a 0.3 per cent of SSA GDP], and private participation in infrastructure [accounts for 0 per cent SSA GDP] (Ghosh Banerjee and Morella 2011, 215-216).

One could refer to a series of controversy in the composition of expenditure, which is determined by a country's relative economic performance. For instance *Middle-income countries allocate 80 per cent of WSS spending to maintenance, likely reflecting the fact that they have already built much of the infrastructure needed. By contrast, all the other country groups allocate at most 30 per cent to this item. Therefore, resource-rich countries, low-income countries, and fragile states spend 70 to 90 per cent of their budgets on capital investments* (Ghosh Banerjee and Morella 2011, 217). This severe spending divergence across countries in WSS expenditure has often led to cases where investments had been mismanaged and shown to be inefficient. Conversely, this problem is given to the lack of financial flows; of which low-income and fragile countries are most challenged with. Leading towards a propensity for countries to invest into preferences; rather directing spending's into the expansion of services, which potentially brings new customers and higher returns; as to invest into the maintenance of services or infrastructures, which is actually strongly needed (cf. Ghosh Banerjee and Morella 2011, 217).

Africa's urban WSS infrastructure has a high dependency on foreign aid. Africa's poor central government budget contributes with a trivial 0.7 per cent of its GDP or translated into a mere average of \$180 million annually. However, again spending allocation is in stark correlation with a country's economic effort. In order to meet the MDGs, SSA needs to lure financial sources to invest into its WSS. However, due to the impacts of the global financial crises as well as SSA fiscal condition; donor willingness to invest is extremely low (cf. Ghosh Banerjee and Morella 2011, 231).

But how much is needed to close the MDG gap? The next section will highlight the main challenges in improving Africa's WSS. Additionally I will nudge the estimations of investment requirements needed to still meet the outstanding MDG target 7C.

8.1.1 Struggle expanding water coverage

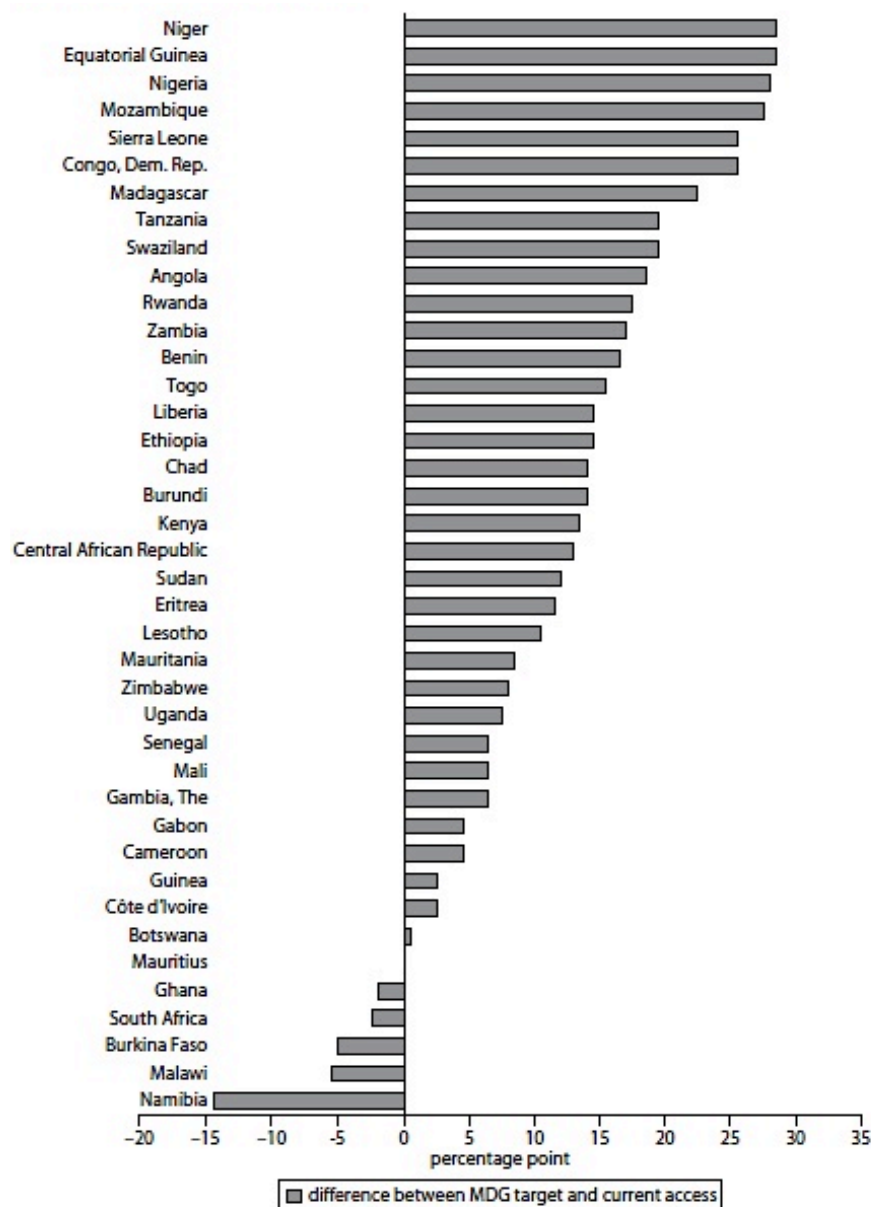
Assessing the costs needed for Africa to reach the MDGs had been relatively difficult, because within the donor communities there had been a misinterpretation problem of various concepts. Due to the self-assessment of definitions such as the *"proportion of people," "sustainable access to*

improved water supply,” and “appropriate technologies and basic level of service” are open to interpretation (Banerjee, et al. 2008, 54). But the problem does not merely lie in the misinterpretation by institutions, but more on the missing of interpretational tools. It is hard to determine SSA performance and requirements – these needs to be developed, without the appropriate quantitative and qualitative data sets. *Improving Africa’s ability to monitor and benchmark its performance should be a top priority for the international community and is likely to be a major challenge requiring significant coordination across countries and donors* (Estache 2005, i).

Taken from the World Bank report on *Africa’s Water and Sanitation Infrastructure Access, Affordability, and Alternatives*, according to data evaluated in 2006, twenty-six out of forty SSA countries are envisioned to reach the water target. Five countries - Ghana, South Africa, Burkina Faso, Malawi, and Namibia, had outperformed its expectations and have proven to be an absolute epitome in its urban water sector reformation. They have surpassed its water MDG already in 2006. The following graph depicts each country’s difference between its MDG target and current access (cf. Ghosh Banerjee and Morella 2011, 191).

Between 1990 and 2006, Namibia has been the strongest in its coverage improvement; it had exceeded its MDG target by 15 per cent. Followed by outstanding performance of two low-income countries; Malawi and Burkina Faso; both exceed by 5 per cent. However, on the other end six countries stand out with failed efforts in improving its water coverage rate; standing at 25 per cent points below the MDGs target. Niger is among the worst performers followed by in decreasing order; Equatorial Guinea, Nigeria, Mozambique, Sierra Leone and Democratic Republic of Congo. The remaining 17 countries move around the 10 to 25 per cent mark away from the goal (cf. Ghosh Banerjee and Morella 2011, 193)

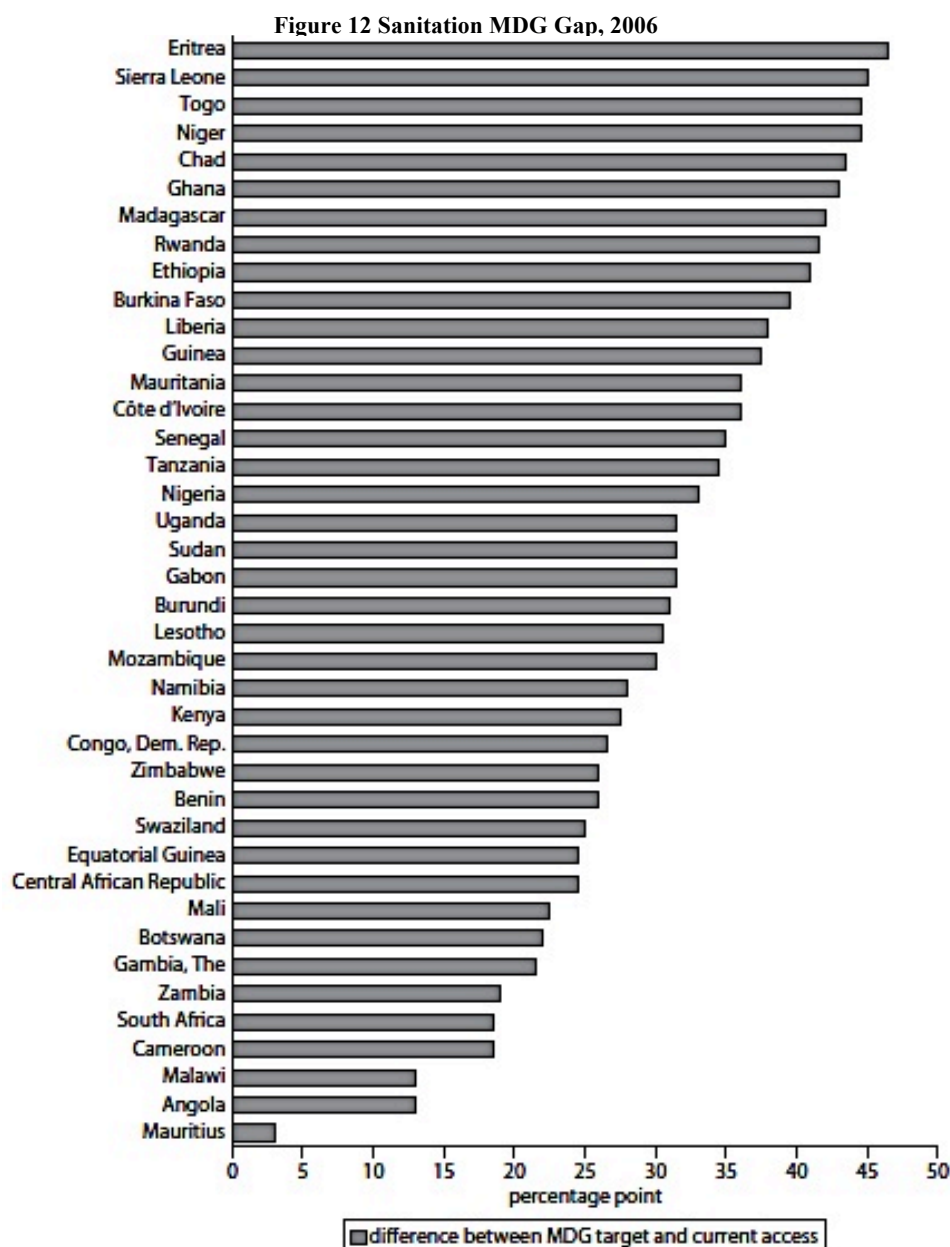
Figure 11 Water MDG Gap, 2006



Source (Ghosh Banerjee & Morella 2011, 192)

8.1.2 Struggle expanding sanitation coverage

Improvements in SSA sanitation coverage had been fairly unostentatious. A compelling fact however is that several countries; example Burkina Faso or Botswana had shown laudable performance in improving its water coverage rate and yet less laudable in its sanitation MDG. According to the data collection of 2006, Burkina Faso's sanitation coverage rate stands approximately 40 per cent from its MDG target; and Botswana has a gap of over 20 per cent. Mauritius is the only country, which stands below five per cent and is among the few that will most likely reach that MDG.



Source (Ghosh Banerjee & Morella 2011, 194)

Middle-income countries are better positioned with respect to the MDG challenge in both absolute and relative terms, given the typically higher starting levels of coverage. They will have to improve water service for 9 million Africans and improve sanitation for 16 million. Nonfragile, low-income countries will face the largest number of new water customers in absolute terms: 120 million [...] fragile, low income countries [...] will need to add more than 100 million Africans to water service, equal to 42 per cent of their current population. In the sanitation space, nonfragile, low income countries face the most difficult challenge: they will have to add more than 170 million customers, equal to more than half of their current population. Fragile, low-income countries follow closely in relative terms, although in absolute terms resource-rich countries will need to add a larger number of

customers given their size (Ghosh Banerjee and Morella 2011, 196).

In order for SSA to meet future demands; an enormous budget is needed to secure sanitation and water service in both rural and urban areas. According to Antonio Estache in order for Africa to meet its total MDGs it would need to generate a total of *US\$40 billion a year for 10 years* with an average growth rate of 7%. Of which a total expenditure of 0.7% will be entitled to the water sector and 1.1% into the improvement of sanitation coverage (cf. Estache 2005, 5).

In the process of securing future water demands for the government and for the SSA population two important objectives need to happen in SSA development endeavour: Firstly, governments jointly with donor communities need to assent towards a regulative and aligned financial aid use. Aid budget allocation should not only be vested in to the end product; as sought so by various donor agencies in the past, but rather investments need to reach the entire spectrum; from the extraction of water; to the maintenance of water and sanitation; over to the distribution and servicing coverage; as well as pricing mechanism. Concentrated financial aid is needed throughout the entire production process; with main focus in the operation and maintenance of water (cf. Banerjee, et al. 2008, 54).

Ensuring adequate service delivery requires not only the establishment of effective institutional structures but the securing of long-term financing. Compounding the challenge of financing water supply and sanitation (WSS) in Africa are the rising capital and rehabilitation costs needed to meet the Millennium Development Goals (MDGs) in the short term and to ensure a secure water future in the long term (Banerjee, et al. 2008, 54).

The second aspect that needs severe improvement are the *unit costs of service provision* [which vary] *across countries and within regions as a result of density, location, technological innovation, and level of local market development* (Ghosh Banerjee and Morella 2011, 197) The vast regional distinction between investment levels of WSS in urban areas such as mega cities, which are due to their dense nature fairly low; and in rural dispersed areas; due to their remoteness; expansion of networks is extremely cost intense and often not even considered (cf. Ghosh Banerjee and Morella 2011, 197) The capital cost per capita of residential water and sanitary services substantially increases the further one moves away from larger cities. Additionally regional differences are persistent in terms of technology; [more] *advanced technologies, such as boreholes with hand or even electric pumps, are typically used in urban areas, whereas less-expensive technologies are more common in rural areas, where low densities require less capacity* (Ghosh Banerjee and

Morella 2011, 200).

The predicament of SSA private water provision is always conflicted in a trade-off between maximizing efficiency and its unit costs, which *determines the level of spending on service expansion, rehabilitation, and operations and maintenance (O&M)* (Ghosh Banerjee and Morella 2011, 197)

Poor capacity in the local construction sector, lack of skilled construction workers, shortage of materials, and scarce financing reduce the range of available on-site technologies and constrain the development of innovations that would ensure higher quality at more affordable prices. (Ghosh Banerjee and Morella 2011, 198).

Operating efficiently means *understanding of what level of service can be realistically provided to as many people as possible rather than channeling limited public resources into higher-quality services accessible by considerably fewer people* (Ghosh Banerjee and Morella 2011, 198). For the African continent to improve its WSS infrastructure as well as for the elusiveness in meeting the MDGs 7c by 2015; the continent requires an unconceivable monetary compensation that will ignite in a short period of time the outstanding requirements. *The considerable sensitivity to density makes infrastructure networks less affordable in Africa than elsewhere. Africa remains a predominantly rural continent and is therefore low-density* (Ghosh Banerjee and Morella 2011, 198)

Sixty-six per cent of Africans still live in rural areas, and of those 50 per cent live in the rural hinterlands and up to 16 per cent in remote villages.[...] one-third of the urban population—equal to 10 per cent of the overall population—lives in peri - urban areas with fewer than 100 people per square kilometer, and a slightly larger share—13 per cent of the overall population—lives in cities with a population of more than 1 million and densities of

about 3,500 people per square kilometer (Ghosh Banerjee and Morella 2011, 198)

The next section will cover the spending requirements needed to meet the water and sanitation MDGs.

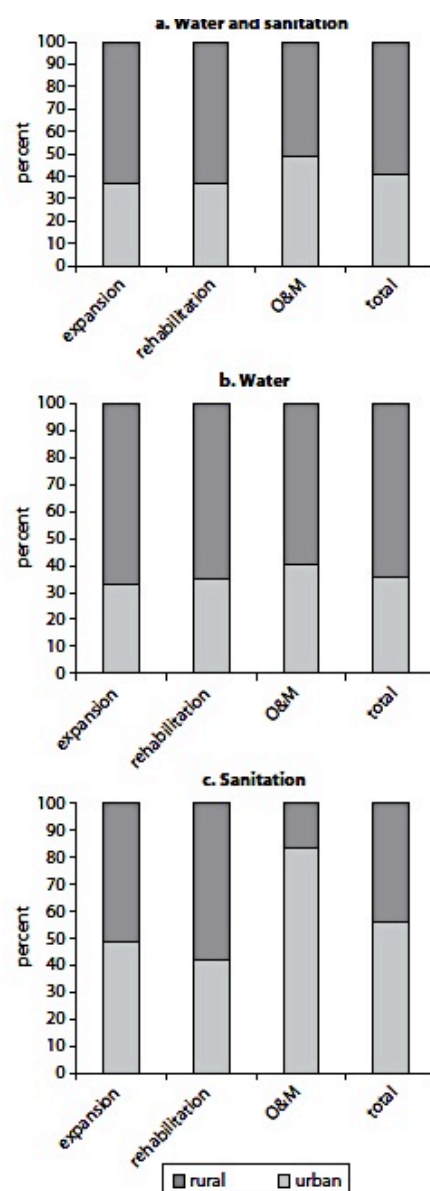
8.2 Financing the MDG gap

There have been numerous estimations concerning the outstanding financial requirements needed to close the MDG gap. As already mentioned The Human Development Index foresees an annual amount of \$23.5 billion; the World Bank estimates a total spending of \$22.6 *billion per year or 3.5 per cent of Africa's gross domestic product* (Ghosh Banerjee and Morella 2011, 202).

Most of the budget – referring to World Bank estimations, is entitled to infrastructural development requiring a total of *to \$17 billion per year or 2.7 per cent of Africa's GD* (Ghosh Banerjee and Morella 2011, 202). A relative large amount of total expenditure is accredited into infrastructural development, requiring *annul allocations up to 1.5 per cent of Africa's GDP [...], or 43 per cent of overall spending* (Ghosh Banerjee and Morella 2011, 202). Another massive “chunk of the cake” is vested in to the O&M accounting for *1.1 per cent of Africa's GDP, or 31 per cent of overall costs* (Ghosh Banerjee and Morella 2011, 202). A relative small amount of *0.9 per cent of Africa's GDPs* is allocated to the rehabilitation of existing asset (Ghosh Banerjee and Morella 2011, 202).

Similar expenditure patterns persist in the water spending needs; *42 per cent of which are generated by investments in expansion, 25 per cent by rehabilitation of existing assets, and 33 per cent by O&M* (Ghosh Banerjee and Morella 2011, 202). The sanitation sector has a slight divergence in its expenditure framework; *investments in new infrastructure dominate spending needs and account for more than 40 per cent, and rehabilitation and O&M each account for one-fourth* (Ghosh Banerjee and Morella 2011, 202).

Figure 13 Urban-Rural split of Spending Needs



Source (Ghosh Banerjee & Morella, 2011, 204)

In terms of Urban-Rural split in spending, most of the expenditure on water and sanitation is vested into the rural areas *because of the large urban-rural divide in access to infrastructure services, quality of service, and asset conditions, which are estimated to account for 59 per cent of overall requirements* (Ghosh Banerjee and Morella 2011, 202). Expenditure in overall improvement in rural water space, whether in the expansion of new infrastructures, rehabilitation or O&M, accounts for approximately 70 per cent o total spending. In the development of sanitation space a close 55-45 per cent split is vested into the urban region (cf. Ghosh Banerjee and Morella 2011, 202). Spending patterns are not only subject to urban and rural shortcomings but also strongly correlate with a countries income level.

Low-income countries, whether fragile or nonfragile, and resource-rich countries show much similarity, with costs divided almost equally among expansion and rehabilitation and maintenance. [...] middle-income countries focus more on maintenance, which accounts for half the overall needs, and the high coverage rates and relatively lower rehabilitation backlog make infrastructure expansion and rehabilitation less of a priority. (Ghosh Banerjee and Morella 2011, 206)

Table 8 Spilt of Spending Needs by Category

	Share of GDP (%)					US\$ million per year				
	CAPEX			O&M	Total spending needs	CAPEX			O&M	Total spending needs
	New investment	Rehabilitation	Total CAPEX			New investment	Rehabilitation	Total CAPEX		
Sub-Saharan Africa	1.5	0.9	2.4	1.1	3.5	9,843	5,679	15,522	7,118	22,640
Resource-rich	1.3	0.8	2.1	0.8	2.9	2,864	1,741	4,605	1,759	6,364
Middle-income	0.4	0.4	0.7	0.7	1.5	1,034	951	1,985	1,991	3,976
Low-income, fragile	5.9	2.7	8.5	3.3	11.8	2,208	1,006	3,213	1,223	4,437
Low-income, nonfragile	3.4	1.8	5.1	1.9	7.1	3,714	1,968	5,682	2,128	7,810

Source (Ghosh Banerjee & Morella, 2011)

Notes CAPEX = capital expenditure, O&M=operations and maintenance

As already indicated in a previous chapter, development is an inhomogeneous process and therefore a country's requirements to develop vary across countries. It applies for the requirements needed to meet the MDGs, which salient differences are evident in the previous graph. The World Bank's research paper on Africa's Water and Sanitation Infrastructure: *Access, Affordability, and Alternatives* have based on countries outstanding MDG requirements identified three country categories:

- Group 1: consists of countries that have a *large spending need of [...] more than 10 per cent of the GDP per year.*
- Group 2: Countries with a medium spending needs that require a *3 to 10 per cent of GDP per year.*
- Group 3: And countries with a medium spending need that require *less than 3 per cent of GDP per year* (Ghosh Banerjee and Morella 2011, 206)

The two graphics below give an extensive in-depth cross-country analysis on each country's outstanding needs, in absolute and relative terms. South Africa peculiarly stands out compared to other countries with having the most annual spending requirement of \$3.3 billion or less than 5 per cent of GDP per year. Equatorial Guinea is entitled to a mere \$19 million per year, and is according to the World Bank graph a least receiver of total expenditure. However, it should be mentioned that a country's size as well as its population density plays a vital role in the MDG requirements. Additionally, for some countries relevant data is missing to assess absolute spending requirements (cf. Ghosh Banerjee and Morella 2011, 206).

This chapter has covered the financial requirements of each country to meet the MDGs by 2015. The MDGs affordability is in strong correlation with a countries gross domestic product. *Halving the population without access to water and sanitation services by 2015 is estimated to require only 1.5 per cent of middle-income countries' GDP per year. Resource-rich countries should invest twice as much annually—3 per cent of their GDP* (Ghosh Banerjee and Morella 2011, 206).

For the aforementioned income groups, improving water coverage and sanitation standards, seems manageable in meeting target 7C by 2015. However, in contrast to low-income countries, which need an annual GDP of 7 per cent, or even more challenging for fragile states; which need to allocate 12 per cent of its GDP annually to reach its water and sanitation, *these countries must either accommodate new customers with lower-cost technologies that substantially reduce investment needs and maintenance costs or postpone their achievement of the goals* (Ghosh Banerjee and Morella 2011, 206).

Based on the prevailing spending patterns towards reaching the MDGs by 2015 on water and sanitation seem relatively attainable for middle-income countries and barely realizable for resource rich countries. The rest face a severe funding problem and are forced to adopt alternative measures

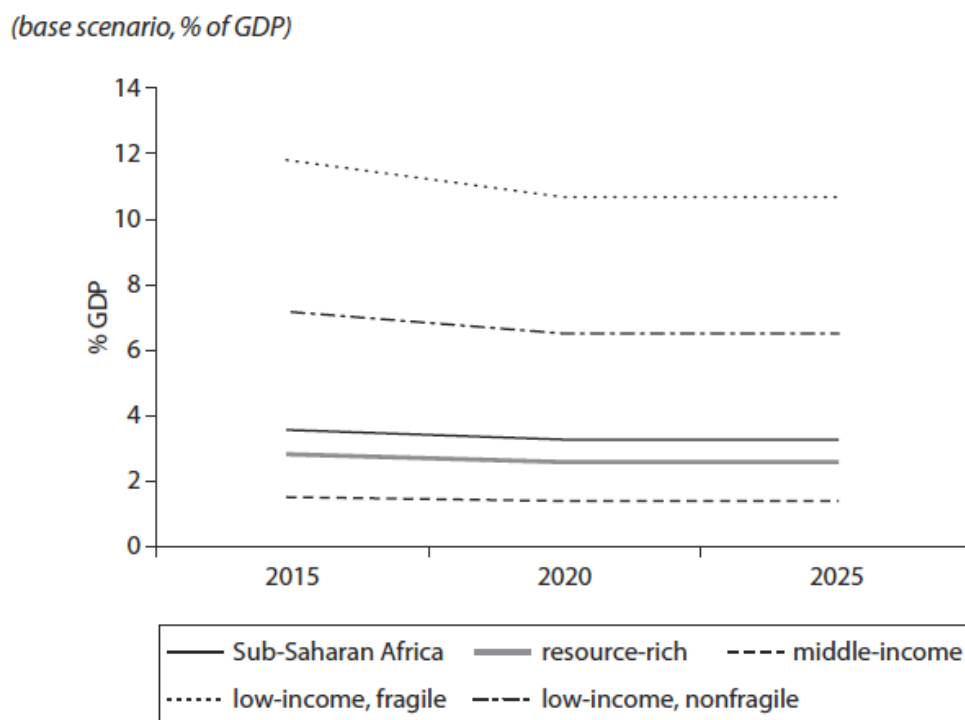
to overcome their plight.

8.3 Alternative MDG approaches

One alternative that has already factored into a contingency plan of the post-MDG efforts is to prolong the targets deadline for another 5 to 10 years. Several experts assume that SSA will need another decade to translate MDG efforts. Furthermore, there are estimations that proclaim that African urbanisation rate will increase tremendously and will *become predominantly urban by 2020*. (Ghosh Banerjee and Morella 2011, 240) Urbanisation is followed by high population that results into dense cities; and *as density increases, network infrastructure unit costs decreases, as does the investment required on new infrastructure* (Ghosh Banerjee and Morella 2011, 240). Based on the latter findings, this has the implication indicating that annual financial needs decrease with further MDG time horizon extension.

Postponing the deadline from the assigned 2015 for another 10 years will grant SSA countries more valuable time to develop; and according the plot graph, will inevitably decrease outstanding financing requirements for the MDGs.

Figure 14 Spending Needs by Country Type under Different Time Horizons



Source (Ghosh Banerjee & Morella 2011, 241)

[A] trend is observed across all income groups [...] annual needs decrease by less than 10 per cent—but are still beneficial, especially for low-income, fragile countries. [...]The overall annual burden for Africa lessens only marginally, as does the burden for the resource-rich and low-income, nonfragile countries. Fragile countries would save the most, yet just 1 per cent of GDP per year, with overall needs decreasing from 12 per cent to 11 per cent of GDP. Middle-income countries would also save if they could take 10 more years to reach targets, yet they would be better off by postponing the achievement of the water and sanitation MDG by 5 rather than 10 more years (Ghosh Banerjee and Morella 2011, 241)

Extending time horizon is an alternative approach; and with current spending kept the same; however only under the condition if utilities operate in its most efficient form, Sub-Saharan Africa will most likely meet its MDGs by 2027. Under the same caveat, fragile states will need 57 years for its MDGs for water and sanitation; and middle income countries an estimation of 21 to 30 years, depending on their degree of efficiency gains (cf. Ghosh Banerjee and Morella 2011, 243).

Second, alternative is to incorporate low cost technologies in the provision of WSS. Compensating higher-level technologies for lower cost technologies respond to both important spectrums of unit cost and efficiency; both instances result in the overall reduction of the MDG gap by 60 per cent. *When the ultimate goal is expanding access and economies of scale are not possible, no network, lower-cost technological alternatives might offer a much more efficient solution [...] —higher costs are associated with diminishing returns in terms of safety and health* (Ghosh Banerjee and Morella 2011, 244).

This sort of shift has a positive impact on fragile states, which have cost reduction of 5 per cent of GDP in attaining the MDGs. Comparable impact is also envisioned in low-income countries accounting for a reduction of outstanding financial MDG requirements by 55 per cent. Middle-income countries have a better position due to their *high rates of access to network services whose expansion has a reduced marginal cost*. The funding gap will most likely disappear (Ghosh Banerjee & Morella 2011, 248).

The future of Africa's MDG gap faces severe challenges. On October 1st 2013 at the 68th session, a high level plenary meeting was called together to discuss the future of the Millennium Development Goals. As I have highlighted numerous times in my research paper, it is clear that many countries won't meet their targets by 2015, therefore the UN General Assembly has deliberately acceded to

the prevailing MDG gap. At the summit, the UN General Assembly has distinctly expressed the unrelenting progress of MDGs in a few developing countries; mostly African countries, in delivering the people with basic needs. The UN General Assembly states that *[they were] conscious of the special challenges and needs of the least developed countries; [...] despite some impressive progress, most African countries [remained] off track in meeting [their] Goals; and that conflict and post-conflict countries face the most challenges in achieving any of the Goals by 2015* (The United Nations General Assembly 2003, 2).

The draft resolution submitted by the President of the General Assembly strengthened the paramount agendas; based on the Rio Declaration and the Millennium Summit, towards a newly resolved and intensified development approach. The post MDG framework accentuates the follow up efforts to be made towards achieving the Millennium Development Goals. These salient following outcomes are addressed in the following chapter.

8.4 The big 5s of the Post MDG

One of the main core agendas of the post MDGs is to accelerate the MDG progress. While directing most of their attention and support to countries that are the furthest behind; they will also put extra efforts into the strengthening of global partnerships. The new universal paradigm is *driven by five big, transformative shifts* (United Nations, 2013, Executive summary), taken from the Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda:

- 1. Leave no one behind.** The intrinsic nature of the MDG is still kept alive, with ensuring that every human being gets and knows their *universal human rights and basic economic opportunities*.
- 2. Put sustainable development at the core.** Continents such as Africa will face in the near future physical changes within the environment. The universal challenges in tackling climate change; the over exploitation of natural resources; and environmental degradation, can only be achieved with sustainable approaches in every dimension. *Only by mobilising social, economic and environmental action together can we eradicate poverty irreversibly and meet the aspirations of eight billion people in 2030* (United Nations 2013,ES).
- 3. Transform economies for jobs and inclusive growth.** Ensuring that everyone can obtain the right tools: such as education, water, health etc. to grow and contribute to the economy as among the main agendas. *A rapid shift to sustainable patterns of consumption and production--harnessing innovation,*

technology, and the potential of private business to create more value and drive sustainable and inclusive growth. Diversified economies, with equal opportunities for all, can unleash the dynamism that creates jobs and livelihoods, especially for young people and women (United Nations 2013, ES).

4. **Build peace and effective, open and accountable institutions for all.** Encouraging transparency and the freedom of expression. *Responsive and legitimate institutions should encourage the rule of law, property rights, freedom of speech and the media, open political choice, access to justice, and accountable government and public institutions* (United Nations 2013, ES).
5. **Forge a new global partnership.** Strengthening development partnership at all levels is considered one of the most driving and vital agendas in the post MDGs. The initiative of global partnership incorporates everyone in the development process. Together finding new ways to overcome poverty. *Everyone involved must be fully accountable* (United Nations 2013, ES).

The big fives seem bold and convincing; however none of these agendas progress can be quantified without appropriate monitoring tools, which had been a failure ever since the inception of the MDGs. Independent data collection and rigorous monitoring bodies are to be considered as a top priority. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda calls for a *data revolution* for sustainable development, with a new international initiative to improve the quality of statistics and information available to citizens *[taking] advantage of new technology, crowd sourcing, and improved connectivity to empower people with information on the progress towards the targets* (United Nations 2013, ES).

These five new principles accompanied by monitoring systems brings hope in breaking peoples restraining barriers. Although, the MDGs will not have been fully met by 2015, its follow up agenda seems promising in creating a better world in addressing social, environmental, and economical challenges.

But all in all, what do we know about privatization and its contributions to the success of the MDGs? Or more precisely; how has Sub-Saharan Africa's privatization efforts in meeting the Millennium Development Goals 7C on halving the proportion of people without access to safe drinking water and basic sanitation proved itself?

9. CHAPTER

SUB-SAHARAN AFRICA'S URBAN WATER PRIVATIZATION EFFORTS SUMMARIZED

The reason for the inclusion of the private sector into the distribution and allocation of public urban water and sanitation services was grounded on the fact that public utilities were incapable in efficiently serving the people with their water and sanitation needs. As I have tried to describe SSA urban water privatization efforts, private sector participation has often failed to live up to its expectations. There are stringent requirements that need to be considered for the private sector to successfully supply urban water to households:

1. *[E]nabling policy and institutions were in place;*
2. *[I]nnovative approaches are used to create competition*
3. *[E]ffective regulatory mechanisms and contract enforcements are feasible*
4. *[T]here is effective demand for improved WSS;*
5. *[I]nnovative and flexible approaches are used to suit the local conditions; and*
6. *[T]ransparent and participatory consultative process precede the privatization process* (Gunatilake & Carangal–San Jo 2008, 19).

In the majority of African countries these six points were either too weak or partially existing or even to the degree where they were completely absent to even consider PSP. The lack of *forethought, analytical work and public consultations* (Gunatilake & Carangal–San Jo 2008, 20) were the major causes why developing economies could not succeed in the utilization of privatization. [As well as the] *need to meet conditions for aid and debt relief, rather than the merits of reform, drove some developing governments to involve the private sector in WSS services* (Gunatilake & Carangal–San Jo 2008, 20).

A second reason why PSP could not properly utilize is due to a misconception, believing that privatization is a universal applicable model. During the neoclassical turn in industrialized countries, which resulted to the devolution and reformation of public utilities encouraged by the “Thatcher and Reagan-era”, privatization; as a transition tool moving assets from the public to private sphere, brought substantial high returns. This approach was seen as a new merit in thriving economies and was sought to do the same in developing countries. However the dividing line between the PSP success in developed countries and the relative PSP failure in developing

countries; was that *[d]eveloped countries [benefited] from mature capital markets with stock exchanges, venture capitalists, banks and other finance institutes, a well-functioning legal system that [protected] private property rights, and conventional standards of business behavior (business ethics) that [facilitated] market exchanges* (Gunatilake & Carangal–San Jo 2008, 20). Structures in SSA were either completely missing or not appropriate for the adoption of such a demanding models.

Thirdly, that the theory so often stressed by technocratic institutions over the devolution of public utility followed by a complete transfer of ownership, would substantially improve WSS efficiency, had not lived up to its expectations. Generating competitions has been proven to be more important than the matter of ownership *in explaining the performance of PSP in the WSS sector. Therefore, the process of privatization has to be complemented with measures that will provide incentives for competition* (Gunatilake & Carangal–San Jo 2008, 20).

And lastly, an issue, which has been picked up strong medial recognition in recent years, is the profit maximizing; - by all means, motivated private firms. Private firms have often allocated and developed WSS infrastructures in areas where payable costumers reside inevitably discriminating the poor (cf. Gunatilake & Carangal–San Jo 2008, 20).

Sine the PSP inception, some countries have managed to reap promising result in the utilization of privatization methods in their WSS. Despite little success in developing countries all in all, PSP is not a futile concept, however for it to have a positive impact appropriate economic environment with stringent laws and regulations is imperative. *The lessons point out that synergy between the public sector (in setting the “rules of the game”; effective contract enforcement; and effective regulatory mechanism) and the private sector (innovative ways to reduce cost and increase efficiency, ethical conduct of business, and corporate social responsibility) will eventually determine socially optimal outcomes of PSP in the WSS sector* (Gunatilake & Carangal–San Jo 2008, 20).

There is a proverb saying that every coin has two sides; meaning that there is always more than one interpretation or point of view to a matter. For a few SSA countries urban water supply and sanitation services had improved and from the whole of SSA only five countries have managed the reach their MDG target 7C. What I have tried to express in my paper is that water unlike any other

resource needs due diligence, especially when billions of people are denied access for various reasons. Institutions such as the World Bank; one of the main encouragers of privatization of public utilities in transition economies, has come to realise that the “one-size-fits all” approach is no longer justifiable and new sustainable approaches are needed (cf. Prasad 2007, 232). The situation over future water is clear however only future will tell how actors will cope with these challenges.

10. APPENDIX

10.1 Zusammenfassung

Wasser ist ein Knappheitsgut, eine Mangelware, welche einerseits verschwendet und andererseits global ungerecht verteilt wird. Der Zugriff und die Verfügbarkeit von Wasser, ist einer der wichtigsten Entwicklungsziele der Gegenwart. Wenn man betrachtet, dass Wasser für alle Organismen ein Lebenselixier und die wichtigste Substanz für den Menschen ist. Jährlich sterben rund 1,5 Millionen Menschen an verunreinigtem Wasser. Laut der UN Statistik werden die Zahlen der Toten stetig steigen wenn bald nicht was getan wird. Dazu kommt auch noch der exponentieller Bevölkerungswachstum von einer geschätzten 8.5 Milliarden Menschen im Jahre 2025, welche auch nach ihren Wasseranteil fördern werden. Das Problem wurde von dem Sicherheitsrat der Vereinten Nationen anerkannt und seit dem 28. Juli 2010 gehört das Recht, Zugang zum sauberen Wasser zu den UN Menschenrechts abkommen.

Im Jahr 2008 haben die Vereinten Nationen als das Jahr der Sanitärversorgung genannt. Grund für diesen globalen Aufruf war dass ein Fundamentaler Teil der Millenniums Ziele; Ziel 7C, *welches versuchte die Zahl jener Menschen, die keinen Zugang zu adäquaten Sanitäreinrichtungen haben, bis 2015 zu halbieren, hinkt dem Zeitplan deutlich hinterher* (Jekel, Meran, & Remy 2008, 143), drohte ihre Realisierung bis 2015 in viele Ländern zu verfehlen, im speziellen in Sub- Sahara Afrika. Global betrachtet, wurde das Ziel 7C erreicht, jedoch Sub-Sahara Afrika, ist noch extrem weit weg von seiner Zielrealisierung. Es gibt zahlreiche Gründe für das –nicht erreichen der Wasserversorgungsziele. Eines davon wäre dass, das Wasser politische Themen im Laufe der Jahre eine negative mediale Konnotation adoptierte und sich zu einem Tabu Thema entwickelte (cf. Jekel, Meran, & Remy 2008, 143). Die globale Debatte über die Privatisierung von Wasseranlagen und Sanitären Versorgung wird durch eine oft kritisierte Fragestellung auf den punkt gebracht; soll Wasser ein öffentliches Gut sein mit ungehindertem Zugang für alle Menschen oder ein privates Gut, dessen Konsum erst durch gewisse Voraussetzung gewährleistet werden muss?

Die Antwort auf diese Frage zeigt sich in den Reformation Bemühungen der letzten Jahrzehnten. Es gab eine starke politische und wirtschaftliches Bestreben, insbesondere gab es enorme Förderungen von entwicklungspolitischen Akteure sowie von der Weltbank und das IMF, die ein Umdenken in der Entwicklungszusammenarbeit bestrebten, damit das Wasser als ein ökonomisches Gut betrachtet wird und dieses auch dementsprechend von privaten Unternehmen aufbereitet und verteilt werden soll. Die Legitimation zur Privatisierung von urbaner Wasserversorgung, entstand aus dem

neoliberalen Grundprinzip, dass besagte, dass privatwirtschaftliche Unternehmen weit aus effizienter seien in der Allokation und Distribution von öffentlichen Ressourcen, im Gegensatz zu staatlich betriebenen Unternehmen, welche meist eine Monopolstellung besitzen. In der Theorie hieße es das Unternehmen die den Gesetzen und Regeln des internationalen Marktes ausgesetzt sind, seien besser im Stande effizienter und nachhaltiger zu Operieren. Jedoch unter inbetrachtenahem von empirischen Wasser Privatisierung versuche der Vergangenheit konnte diese Theorie wenig Legitimität finden.

[D]iese Effizienzsteigerungen kommen selten beim Kunden an. Der einfache Grund dafür ist, dass private Versorger profitorientiert denken. Die Bilanz am Jahresende ist im Zweifelsfall wichtiger als die Servicequalität. Effizienzsteigerungen nutzen daher vor allem den Anteilseignern: Anders als öffentliche Versorger wollen die Privaten nicht lediglich ihre operativen Kosten decken, sondern Gewinne erwirtschaften. Und für einen Monopolisten ist der einfachste Weg zur Gewinnsteigerung die Erhöhung der Preise (Biswas, 2013).

Die Bereitstellung von Wasser und sanitären Anlagen in Sub-Sahara Afrika, war charakterisiert von aggressiven Reformatations-Strategien der 90er, aufgebürdet von der internationalen Spender Gemeinschaft. Der Privatisierungsdruck im Süden entstand aus den relativen positiven Privatisierungserfolgen des Westens. Multilaterale und bilaterale Institutionen propagierten, dass die Privatisierung von Wassergemeinschaften einen Multiplikator Effekt habe, welche wirtschaftliche als auch sozioökonomische und entwicklungsfördernde Auswirkungen habe. Was die Experten jedoch nicht mit berücksichtigt haben, war dass der Westen und der Süden strukturell, politisch und auch kulturell nicht unterschiedlicher hätten sein können. Im speziellen, SSA fehlten jegliche politische, infrastrukturelle und gesetzliche Formen, die das aufgesetzte Konzept von Wasserprivatisierung ausführen konnte.

Es mutet geradezu illusorisch an, dass die Privatisierung ursprünglich mit dem Argument vorangetrieben wurde, dass die Preise sinken würden und das Leitungsnetz durch private Investitionen verbessert werden könnte. Das Primat des Profits führt in der Praxis allerdings häufig dazu, dass Investitionen aus Kostengründen ausbleiben. In einem Land ohne akute Wasserknappheit macht es aus wirtschaftlicher Sicht Sinn, Lecks zu tolerieren und somit Kosten zu sparen (Biswas, 2013).

Die Frage ist ob das universalistische Konzept zur Privatisierung von öffentlichen Wasserwerken geeignet ist um das Problem zu beheben und um die MDG 7C zu erreichen. In meiner

Diplomarbeit bin ich genau dem zur Grunde gegangen; ob herkömmliche Privatisierungsstrategien zur Erzielung der Millenniumsziele 7C geeignet sind. Fact ist, nur eine Handvoll von SSA Länder haben ihr Ziele erreicht. Die meisten werden bis 2015 nicht die Ziele erreichen und laut Experten könnte es für den ganzen Kontinent noch 10-20 Jahre dauern. Im Grunde genommen konnten Privatisierungs-Bemühungen nur in einigen Länder positive Resultate erzielen.

11. BIBLIOGRAPHY

- (WWAP), U. p. (2003). *Water for People Water for Life: Executive Summary*. The United Nations World Water Development Report. Paris: UNESCO Publishing.
- ADB; WB; ADB; EBCD; IMF; IADB. (2002). *Achieving the Millennium Development Goals in Africa: Progress, Prospects, and Policy Implications*. Global Poverty Report 2002, African Development Bank in collaboration with the World Bank with contributions from the Asian Development Bank the European Bank for Reconstruction and Development International Monetary Fund and the Inter-American Development Bank.
- Administration, E. I., Davis, N., Doucet, K., & Lillis, K. (1996). *Privatization and the Globalization of Energy Markets*. Report, the Office of Energy Markets Chief of the Financial Analysis Branch (202-586-1445). and End Use of the Energy Information Administration, Specific technical information concerning this report may U.S. Department of Energy,, Washington DC.
- African Development Bank. (2011). *Africa in 50 Years' Time: The Road Towards Inclusive Growth*. Report, African Development Bank Group, Tunisia.
- Altwater, E. (2004). *What happens when public goods are privatised?* Abgerufen am 09. 09 2013 von Rosa-Luxemburg-Stiftung: http://www.rosalux.de/fileadmin/rls_uploads/wemgehoertdiewelt/altwater_0312.pdf
- Anne (ed.), I. (2012). *Water Governance -Challenges in Africa: Hydro-optimism or hydro-pessimism?* (Bd. Volume 2). Bern, Switzerland: Peter Lang.
- Auriol, E., & Blanc, A. (2009). Capture and corruption in public utilities: The cases of water and electricity in Sub-Saharan Africa. *Utilities Policy: Strategy, Performace, Regulation* , 2 (17).
- Bakker , K. (2005). Neoliberalizing Nature? Market Environmentalism in Water Supply in England and Wales. *Annals of the Association of American Geographers* , Vol. 95, (No. 3), 542-565 .
- Bakker, K. J. (2003). A Political Ecology of Water Privatization. *Studies in Political Economy* (70), 35-58.
- Bakker, K. (2007). *The "Commons" Versus the "Commodity": Alter-globalization, Anti-privatization and the Human Right to Water in the Global South*. University of British Columbia,. Vancouver, BC, Canada;; Editorial Board of Antipode.
- Banerjee, S., Skilling, H., Foster, V., Briceño-Garmendia, C., Morella, E., & Chfadi, T. (2008). *Ebbing Water, Surging Deficits: Urban Water Supply in Sub-Saharan Africa*. The International Bank for Reconstruction and Development. Washington, DC: The World Bank.
- Bauseneik, Jens -Müller. (13. 01 2006). *Der Freitag*. Abgerufen am 11. 02 2014 von Der Tropfen auf dem heißen Markt: <http://www.freitag.de/autoren/der-freitag/der-tropfen-auf-dem-heissen-markt>.
- Bayliss, K. (2003). Utility privatisation in Sub-Saharan Africa: a case study of water. *The Journal of Modern African Studies* December 2003, pp 507 - 531 , Volume 41 (Issue 41), 507-531.
- Bayliss, K., & PSIRU. (2002). *Water Privatisation in SSA: Progress, Problems and Policy Implications*. London, United Kingdom.

- Beddow , V. (02. 06 2010). *The impact of Privatisation on the sustainability of Water Resources*. Abgerufen am 12. 12 2013 von IWA WaterWiki: <http://www.iwawaterwiki.org/xwiki/bin/view/Articles/THEIMPACTOFPRIVATISATIONONTHEUSUSTAINABILITYOFWATERRESOURCES>
- Beisheim, M. (2011). *Innovative Governnce durch Entwicklungspartnerschaft: Chancen und Grenzen am Beispiel transnationaler Wasserpartnerschaften*. stiftung Wissenschaft und Politik Deutsches Institut für Internationale Politik und Sicherheit, politik. Berlin: SWP-Studie.
- Bel, G. (2006). Retrospectives The Coining of “Privatization” and Germany’s National Socialist Party. *Journal of Economic Perspectives* , Volume 20 (Number 3), 187–194.
- Bel, G., & Costas, A. (2006). Do Public Sector Reforms Get Rusty? Local Privatization in Spain. *The Journal of Policy Reform* , Vol. 9 (No. 1), 1-24.
- Bennett , E., James, S., Grohmann, P., Gomez-Echeverri, L., Livingston, N., Gentry, B., et al. (2000). *Joint Venture Public- Private Partnerships for Urban Environmental Services*. UNDP/PPPUE, Development Assistance. New York,USA: UN Press.
- Billeskov, A. *Water privatization conflicts*. Environmental and Cultural Committee.
- Biswas, A. K. (2008). Integrated Water Resources Management: Is It Working? *Water Resources Development* , Vol. 24 (No. 1), 5-22.
- Biswas, Asit. (27.09.2013). Leck geschlagen: Ein Blick nach England zeigt: Die Privatisierung der Wasserversorgung nutzt im Zweifelsfall den Anteilseignern mehr als dem Verbraucher. URL. <http://www.theeuropean.de/asit-biswas/7483-negative-folgen-der-wasserprivatisierung> (14.02.2014)
- Blough, R. (1968). The World Bank Group . *The Global Partnership: International Agencies and Economic Development* , Vol. 22 (No. 1), 152-181 .
- Boycko, M., Shleifer, A., & Vishny, R. W. (1996). A Theory of Privatisation. *The Economic Journal* , Vol. 106 (No. 435), 309-319 .
- Braunstein, J. (2007). Trading the rain: should the world’s fresh water resources be an internationally traded commodity? *Integrated Water Resources Management and Security in the Middle East* , 269–284.
- Buchs, T. D. (2003). *Privatization in Sub-Saharan Africa: Some Lessons from Experiences to Date*. World Bank Group. World Bank Group.
- Clarke, S. (kein Datum). *The Marxist Theory of Overaccumulation and Crisis*. Abgerufen am 12. 12 2013 von The University of Warwick: <http://homepages.warwick.ac.uk/~syrbe/pubs/sands.pdf>
- Clarke, T., & Barlow, M. (2001). *Blaues Gold: Das Globale Geschäft mit dem Wasser*. (G. Gockel, T. Wollermann, & B. Jendricke, Übers.) Ottawa, Kanada: Antje Kunstmann.
- Curran , R. (2006). *The water privatization debate: a critique of and alternative to the international financial institutions’ promotion of the private provision of water services*. Thesis , The Faculty of Humboldt State University , Social Science Environment and Community , Germany.

- Deardorff, A. V. (2010). *Alan Deardorff's Home Page* . (D. G. Economics., Produzent) Abgerufen am 1. 11 2013 von Deardorffs' Glossary of International Economics: <http://www-personal.umich.edu/~alandear/glossary/g.html#good>
- Elver , H. International Environmental Law, Water and the Future. *Third World Quarterly, Reshaping Justice: International Law and the Third World* (2006), , Vol. 27 (No. 5), 885-90 .
- Estache, A. (2005). *What do we know about Sub-Saharan Africa's Infrastructure and the Impact of its 1990s reforms?* The World Bank & ECARES, Université Libre de Bruxelles. Bussels : The World Bank.
- Felber, C., & Reimon, M. (2003). *Schwarzebuch Privatisierung: Was Opfern wir dem Freien Markt?* Vienn, Austria: Verlag Carl Ueberreuter.
- Food & Water Watch. (2009). *Money Down the Drain: How Private Control of Water Wastes Public Resources*. Washington, DC: Food & Water Watch.
- Gerlach , e., & Franceys, R. (2010). Regulating Water Services for All in Developing Economies. *World Development* , Vol. 38 (No. 9,), 1229–1240.
- Ghosh Banerjee , S., & Morella, E. (2011). *Africa's Water and Sanitation Infrastructure: Access, Affordability, and Alternatives*. The International Bank for Reconstruction and Development / The World Bank. Washington DC: www.worldbank.org.
- Giordano, M., Giordano, M., & Wolf, A. (2002). The Geography of Water Conflict and Cooperation: Internal Pressures and International Manifestations. (The Geographical Journal, Hrsg.) *Water Wars? Geographical Perspectives* , Vol. 168 (No. 4), 293-312 .
- Grover , V. I. (2006). *Water: global common and global problems*. USA, New Hampshire: Science publishers .
- Gunatilake , H., & Carangal–San Jo, M. F. (2008). *Privatization Revisited: Lessons from Private Sector Participation in Water Supply and Sanitation in Developing Countries*. Asian Development Bank, Economics and Research Department. Manila, Philippines: ADB.
- Gutiérrez Gómez, L. (2012). *Accumulation by Dispossession Through State-Corporate Harm: The Case of AngloGold Ashanti in Colombia*. Faculty of Law, Economics and Governance Utrecht University, Criminology. Utrecht University.
- Habermann, B., Misganaw, B., Peloschek, F., Dessalegn, Y., & G/selassie, Y. (2013). *Inter- and Transdisciplinary Research Methods in Rural Transformation Case studies in Northern Ethiopia*. TRANSACT (Strengthening Rural Transformation Competences of Higher Education and Research Institutions in the Amhara Region, Ethiopia) project, Development Studies. Vienna/Ethopia: Austrain Development Cooperation.
- Hall , D., & Lobina, E. (2002). *Conflicts, companies, human rights and water - A critical review of local corporate practices and global corporate initiatives*. Public Services International Research Unit (PSIRU), A report for Public Services International (PSI) for the 6th World Water Forum at Marseille, March 2012. March: PSIRU.
- Hall, D., Lobina , E., & de la Motte, R. (2005). Public resistance to privatisation in water and energy. *Development in Practice* , Volume 15 (Numbers 3 & 4), 286-301.
- Harvey, D. (2003). *The New Imperialism*. New York, USA: Oxford University Press .

- Hefny, M. A. (2010). Water commoditization: An ethical perspective for a sustainable use and management of water resources, with special reference to the Arab region. In L. Martinez-Cortina, A. Garrido, & E. Lopez-Gunn, *Rethinking Water and Food Security (Fourth Botin Foundation Water Workshop)* (S. 159-180). London, United Kingdom: CRC Press/Balkema.
- Heller, M. A. (January 1998). The Tragedy of the Anticommons: Property in the Transition from Marx to Markets. *Harvard Law Review*, No. 3 (Vol. 111), S. 621-688.
- Hermann, C. (2006). *Commodification, consequences and alternatives: Lessons from the privatization of public services in Europe*. Abgerufen am 12. 12 2013 von academia.edu share research: http://www.academia.edu/828214/Commodification_Consequences_and_Alternatives_Lessons_from_the_privatization_of_public_services_in_Europe
- Hodgson, S. (2006). *Modern water rights: Theory and practice*. Food and Agriculture Organization of the United Nations, for the Development Law Service FAO Legal Office. Rome: FAO.
- Hoekstra, A. Y., Chapagain, A. K., Aldaya, M. M., & Mekonnen, M. M. (2011). *Water Footprint Assessment Manual: Setting the Global Standard*. Abgerufen am 01. 01 2014 von Water Footprint Network : <http://www.waterfootprint.org/downloads/TheWaterFootprintAssessmentManual.pdf>
- Hukka (TUT, IEEB), J. J., & Katko (TUT, IEEB), T. S. (2003). *Water Privatisation Revisited: Panacea or Pancake?* IRC International Water and Sanitation Centre. Delft: IRC International Water and Sanitation Centre.
- Hulme, D., & Scott, J. (January 2010). *The Political Economy of the MDGs: Retrospect and Prospect for the World's Biggest Promise*. Brooks World Poverty Institute, University of Manchester, Development Studies. Manchester, UK: University of Manchester Brooks World Poverty Institute.
- International Water Association. (2004). *The Bonn Charter for safe drinking water*. Abgerufen am 01. 01 2014 von www.iwahq.org.uk/template.cfm?name=bonn_charter
- Ioannis, I. N. (2004). *Reforming infrastructure: Privatization, Regulation, and Competition*. International Development. the World Bank and Oxford University Press.
- Jekel, M., Meran, G., & Remy, C. (26. März 2008). *DIW*. Abgerufen am 12. 12 2013 von Deutsches Institut für Wirtschaftsforschung: www.diw.de/deutsch/produkte/publikationen/data_documentation/29877.html
- Jooste, S. F. (2008). *A New Public Sector in Developing Countries*. Collaboratory for Research on Global Projects. Stanford, CA: Stanford University.
- Kaul, I. *Public Goods: Taking the Concept to the 21st Century*. New York.
- Kleemeier, E. L. *Private operators and rural water supplies: A Desk Review of Experience*. World Bank Water Papers. Online: www.worldbank.org/water.
- Krueger, A. O. (1998). Whither the World Bank and the IMF? *Journal of Economic Literature*, Vol. 36 (No. 4), 1983-2020.
- Krugman, P. R., & Obstfeld, M. (2003). *International Economics: Theory and Policy* (sixth Edition Ausg.). USA: Pearson Education, Inc.

- Lane, J.-E. (1997). *Public sector reformation: Rationale, Trends and Problems*. London, United Kingdom: SAGE Publications Ltd.
- Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., et al. (2012). *Transdisciplinary research in sustainability science: practice, principles, and challenges*. Sapienza University of Rome, Sustainability. Online: Springer.
- Langford, M. (2005). The United Nations Concept of Water as a Human Right: A New Paradigm for Old Problems? *Water Resources Development*, Vol. 21, (No. 2.), 273–282.
- Lucia, W. (2005). Privatisation: A Challenge for Sub-Saharan Africa. *OECD Development Centre Policy Insights*, No.14.
- Lynne, G. D., & Saarinen, P. (1993). Melding Private and Public Interests in Water Rights Markets. *Journal of International Agricultural Trade and Development*, vol. 59 (issue 1), 69-83.
- Mankiw, G. N., & Taylor, M. P. (2011). *Economics* (2nd Revised edition edition Aug.). USA: Cengage Learning.
- Mason, B., & Talbot, C. (7. September 2002). *What water privatisation means for Africa*. Abgerufen am 01. 01 2014 von World Socialist Web Site: <http://www.wsws.org/en/articles/2002/09/wate-s07.html>
- McKinley, T., & Bayliss, K. (2007). *Privatising Basic Utilities in Sub-Saharan Africa: The MDG Impact*. UNDP International Poverty Centre, International Development. Brazil : UNDP International Poverty Centre.
- Ministerial Declaration of The Hague. (22 March, 2000,). Ministerial Declaration of The Hague on Water Security in the 21st Century. *Second World Water Forum* (S. In The Hague, The Netherlands). 22 March, 2000,; Ministerial Declaration of The Hague.
- Ndegwa, S. N. (2002). Decentralization in Africa: A Stocktaking Survey. *Africa region working paper series* (issue 40), 31 pages.
- Nellis, J. (2005). *Privatization in Africa: What has happened? What is to be done?* The Fondazione Eni Enrico Mattei Note di Lavoro, The Center for Global Development. Milano: Social Science Research Network Electronic Paper Collection.
- Nguyen, B. (April 2000). *UNITAR*. (UNITAR Online resource center) Abgerufen am 13. 12 2013 von Current Problems of Debt Negotiations and Management for Developing Countries: http://www2.unitar.org/dfm/Resource_Center/Document_Series/Document9/Binh/3Impacts.htm
- Nicol, A. (1999). *A Poverty-Reduction Approach to Water, Sanitation and Hygiene Programmes*. Water Aid, International Development. Water Aid.
- OECD. (2004). *Privatisation in Sub-Saharan Africa: Where Do We Stand?* Development Centre Of The Organisation For Economic Co-Operation And Development, International Development, Paris, France.
- Olleta, A. (2007). *The World Bank's influence on water privatisation in argentina: the experience of the city of buenos aires*. International Environmental Law Research Centre. Geneva, Switzerland: International Environmental Law Research Centre.
- Organisation for Economic Co-operation and Development. (2004). *Public Sector Modernisation: Changing*

- Organisational Structures*. OECD, international Development. OECD Observer.
- Organisation for Economic Co-operation and Development. (April 2003). *Public-Private Partnerships in the Urban Water Sector*. Abgerufen am 12. 12 2013 von www.oecd.org/publications/Pol_brief
- Page , B. (2005). Paying for Water and the Geography of Commodities. *Transactions of the Institute of British Geographers* , Vol. 30, (No. 3), 293-306 .
- Peng, M. W. (2009). *Global strategy* (2.edition Aug.). USA: South-Western Cengage Learning.
- Pérard , E. (2009). *Water Supply: Public or Private?: An approach based on cost of funds, transaction costs, efficiency and political costs*. Institut d'Etudes Politiques de Paris. Paris: Sciences Po.
- Population Institute. (2010). <http://www.populationinstitute.org>. Abgerufen am 09 2013 von http://www.populationinstitute.org/external/files/Fact_Sheets/Water_and_population.pdf
- Prasad, N. (2007). *Privatisation of water: A historical perspective* . Abgerufen am october 2013 von lead-journal: available at <http://www.lead-journal.org/content/07217.pdf>
- Ramamurti, R. (1992). Why Are Developing Countries Privatizing? *Journal of International Business Studies* , No. 2 (Vol. 23), 225-249 .
- Ramamurti, R. (2000). A Multilevel Model of Privatization in Emerging Economies. *The Academy of Management Review* , Vol. 25 (No. 3), 525-55 .
- Rippin , N. (2013). *Progress, Prospects and Lessons from the MDGs: Background Research Paper for the Report of the High Level Panel on the Post-2015 Development Agenda*. German Development Institute/ University of Göttingen, International Development. Bonn; Germany: German Development Institute (DIE) .
- Rouse, M. (2007). *Institutional Governance and regulation of water services: The Essential Elements* . London, United Kingdom: IWA Publishing.
- Saleth, M. R., & Dinar, A. (2004). *The institutional economics of water: A cross-country analysis of institutions and performance*. Northampton, Massachusetts, USA: Edward Elgar Publishing Limited.
- SANTISO, C. (2001). Good Governance and Aid Effectiveness: The World Bank and Conditionality. *The Georgetown Public Policy Review* , Volume 7 (Number 1), 1-22.
- Schacter, M. (2000). *Public Sector Reform in Developing Countries: Issues, Lessons and Future Directions*. Institute On Governance . Ottawa, Canada: CIDA.
- Shaw , T. M. (1993). Beyond Reformism & Revisionism in Africa's Adjustment: renaissance, revolution and/or repression in the 21st century. *Third World Quarterly* , Vol. 14 (No. 2), 381-384.
- Sheshinski , E., & López-Calva, L. F. (2003). Privatization and Its Benefits: Theory and Evidence. *CESifo Economic Studies* , Vol, 429-459.
- Shirley, M. M. (1992). The What, Why, and How of Privatization: A World Bank Perspective. *Fordham Law Review* , Volume 60 (issues 6).
- Singer, H. W. (1942). The German War Economy--VII. *The Economic Journal* , Vol. 52 (No. 208), 377-399 .

- socialdilemma.com. (n.d.). *socialdilemma.com*. (van Lange , Prof. Dr. Paul ; Joireman , Dr. Jeff ; Hardisty , Dave ; van Dijk, Prof. Dr. Eric ;) Abgerufen am 13. 01 2014 von Introduction to Social Dilemmas: <http://socialdilemma.com/content/introduction-social-dilemmas>
- Suliman , O., & Ghebreyesus, G. (2001). Determinants of Privatisation in Selected Sub-Saharan African Countries: Is Privatisation Politically Induced? *JED , Volume 26* (No.2), 33-48.
- Swyngedouw, E. (2005). Dispossessing H2O: The Contested Terrain of Water Privatization. *Capitalism nature socialism , volume 16* (number1).
- Takahashi, K. 2002, *Reversing the Decline of ODA: How Effective is the Current Policy Agenda?*, United Nations, Dept. of Economic and Social Affairs, Division for Sustainable Development.
- TearFund. (n. d.). *Financing Development at the G8 Summit 2003: Meeting the Millennium Development Goals (MDGs) by 2015*. TearFund, International Development. Online: TearFund.
- The International Bank for Reconstruction and Development / The World Bank. (2009). *Public-Private Partnerships for Urban Water Utilities: A Review of Experiences in Developing Countries* (Bd. Trends and policy options no. 8). (P. Marin, Hrsg.) Washington,DC: The World Bank.
- the Swedish Water House. (2004). *Investing in the future :Water's Role in Achieving the Millennium Development Goals*. Swedish Water House & the Millennium Project, International Development. Swedish Water House.
- The United Nations General Assembly. (2003). Outcome document of the special event to follow up efforts made towards achieving the Millennium Development Goals. *Follow-up to the outcome of the Millennium Summit. Sixty-eighth session*, S. 4. New York, USA: United Nations.
- The World Bank. (2006). *Approaches to Private Participation in Water Services: a toolkit*. The International Bank for Reconstruction and Development / The World Bank. Washington,DC: The World Bank.
- Tsoufidis, L. (2010). *Competing Schools of Economic Thought*. Berlin, Heidelberg: Springer-Verlag .
- UN Department of Public Information. (september 2013). *We can end poverty: Millenium development Goal Beyond 2015 fact sheet*. (UN Department of Public Information) Abgerufen am 18. 12 2013 von http://www.un.org/millenniumgoals/pdf/Goal_7_fs.pdf
- UNDP. (2002-2006). *Millenium Project*. Abgerufen am 11. 11 2013 von <http://www.unmillenniumproject.org/goals/>
- UNDP. (2013). *Progress report on the Millennium Development Goals (MDGs) and the post 2015 prospects*. Rabat (Morocco): UN.
- UNDP. (2013). *The Rise of the South: Human Progress in a Diverse World*. United Nations. New York/USA: United Nations Development Programme.
- United Nations Economic And Social Council Economic Comission For Africa. (2013). *Report on progress in achieving the Millennium Development Goals in Africa, 2013*. African union commission, International Development. Abidjan, Côte d'Ivoire: UN.
- United Nations Economic Commission for Africa. (2013). *Assessing Progress in Africa toward the Millennium*

- Development Goals: Food security in Africa: Issues, challenges and lessons.* United Nations.
- United Nations Human Settlements Programme 2011 (UN-HABITAT). (2011). Public-Private Partnerships in Housing and Urban Development. *The Global Urban Economic Dialogue Series* .
- United Nations. (2013). *The Millennium Development Goals Report 2013*. United Nations. New York: United Nations.
- United Nations. (2013). *The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda*. United Nations. New York: United Nations Publications.
- United Nations. (September 2013). *we can end poverty: Millennium Development Goals Beyond 2015 Fact Sheet*. (UN Department of Public Information) Abgerufen am 29. 11 2013 von UN: http://www.un.org/millenniumgoals/pdf/Goal_7_fs.pdf
- UNPF. (2001). *The state of world population 2001-Footprints and Milestones: Population and Environmental Change*. United Nations Population Funds, International Development. n/A: UN.
- UN-Water Task Force on Water Security. (2013). *Water Security & the Global Water Agenda A UN-Water Analytical Brief*. United Nations University Institute for Water, Environment & Health (UNU-INWEH). Canada: UNU-INWEH.
- UN-Water. (kein Datum). *unwater*. Abgerufen am 22. 01 2014 von World Water day 08: international year of sanitation : <http://www.unwater.org/wwd08/flashindex.html>
- GRASSER, H. (Produzent), Wagenhofer, E. (Autor), Wagenhofer, E., & GANSER, L. (Regisseure). (2005). *We Feed the World* [Kinofilm]. Austria: filmladen GmbH.
- Walsh, A. (2011). The Commodification of the Public Service of Water: A Normative Perspective. *Public Reason* , 3 (2), 90-109.
- WHO. (2007). *Combating waterborne disease at the household level*. World Health Organization, International Network to Promote Household Water Treatment and Safe Storage,. Geneva, Switzerland: WHO Press.
- Winpenny, J. (2003). *Report of the World Panel on Financing Water Infrastructure: Financing Water For All*. World water council. World water council.
- WMO. (june 1992). *The dublin statement on water and sustainable development*. Abgerufen am 13. 01 2014 von The World Meteorological Organization (WMO): <http://www.wmo.int/pages/prog/hwarp/documents/english/icwedece.html>
- World Health Organization . (2006). *Guidelines for Drinking-water Quality: First addendum to third edition*. WHO. Web: WHO Press.
- World Health Organization & UNICEF . (2010). *Progress on Sanitation and Drinking-water: 2010 Update*. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. France: WHO Press .
- Worldmeters.info. (n/A. n/A n/A). *Worldmeters: real time world statistics*. (Dadax) Abgerufen am 2. september 2013 von <http://www.worldometers.info/world-population/>
- Yeboah , I. (2006). Subaltern Strategies and Development Practice: Urban Water Privatization in Ghana. *The Geographical Journal: Postcolonialism and Development: NewDialogues?* , Vol. 172 (No. 1.), 50-65.

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Internships & Practical Experiences

<i>Internship</i>	2011/08	NGO Animal Care Trust Duty: Administration, web, newsletter optimization; Fund raising <i>Mangalore, India</i>
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<i>Youth Delegation</i>	2012/04	NPT Conference 2012 Duty: Member of the youth delegation at the UN 2012 Preparatory Committee on the 2015 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons Vienna, Austria / UN headquarters
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Thematic Interests

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