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Since this paper displays an ongoing research process on basic service delivery in developing countries, any comments, suggestions, etc. are highly welcome and should be addressed to
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Masterthesis

Zeppelin University
Department for Public Management and Governance

Equal Access to Basic Services in African LDCs:

The need for coherent, inclusive and effective Policy Frameworks

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ACRONYMS AND ABBREVIATIONS

AfDB	African Development Bank
AU	African Union
BPoA	Brussels Programme of Action
CIA	Central Intelligence Agency (United States of America)
DHS	Demographic and Health Survey
CSO	Civil Society Organization
DFID	Department for International Development (United Kingdom)
EC	European Commission
ECA	(United Nations) Economic Commission for Africa
ESAP	Ethiopian Social Accountability Program
ESCAP	(United Nations) Economic and Social Commission for Asia and Pacific
GBP	Pound Sterling (Great Britain)
GDI	German Development Institute
GDP	Gross Domestic Product
GSDRC	Governance and Social Development Resource Centre
GTZ	German Technical Cooperation
HDI	Human Development Index
HIPC	Highly Indebted Poor Countries
I-PRSP	Interim Poverty Reduction Strategy Paper
IADGs	Internationally Agreed Development Goals
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
IMF	International Monetary Fund
ITFGPG	International Task Force on Global Public Goods
LDCs	Least Developed Countries
MDGs	Millennium Development Goals
MEWD	Ministry of Energy and Water Development (Zambia)
MLGH	Ministry of Local Government and Housing (Zambia)
MTEF	Medium Term Expenditure Framework
MWE	Ministry of Water and Environment (Uganda)
NA	Not available
n.d.	No date
NPM	New Public Management
NPO	Nonprofit Organization
NWASCO	National Water Supply and Sanitation Council (Zambia)
NWP	National Water Policy for Zambia
NWPU	National Water Policy for Uganda
NWSC	National Water and Sewerage Corporation (Uganda)
ODA	Official Development Assistance
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development

PAF	Poverty Action Fund (Uganda)
PCA	Principal Component Analysis
PIP	Public Investment Programme (Zambia)
PRSP	Poverty Reduction Strategy Paper
PSP	Private Sector Participation
SIWI	Stockholm International Water Institute
SSA	Sub-Saharan Africa
SWAP	Sector-wide approach
U5MR	Under-five-mortality rate per 1,000 live births
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department for Economic and Social Affairs
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
UNITAR	United Nations Institute for Training and Research
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNRISD	United Nations Research Institute for Social Development
UNSD	United Nations Statistics Division
USD	United States Dollar
WASHE	Water, Sanitation and Hygiene Education
WDR	World Development Report
WHO	World Health Organisation
WSA	Water and Sanitation Act (Zambia)
WSP	Water and Sanitation Programme
WSS	Safe Drinking Water and Improved Sanitation Services

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CHAPTER 1

Introduction

1 Background

Africa accounts for the largest amount of countries, defined by the United Nations (UN) as Least Developed Countries[1] (LDCs). Characterized by extreme poverty, structural weakness of their economy and lack of capacities related to growth and development, these countries are the most vulnerable segment in the international community. Therefore, as well as because of a limited provision of basic services, they are highly exposed to external shocks such as the recent food crisis or the global economic and financial crisis. Moreover, since African LDCs have commodity-dependent economies, they are hit much harder by such external shocks than for example low-skill manufacturers or service exporters (most Asian and Island LDCs) (UNCTAD 2009). Due to such structural limitations, African LDCs, as recent assessments on the UN Millennium Development Goals (MDGs) show, made the least progress in reaching the targets of the MDGs and will therefore not attain most goals by 2015 (Bourguingnon et al. 2008; ECA/ AU/ AfDB 2009). Furthermore, the Mid-Term Review (2001-2005) for the implementation of the Brussels Programme of Action (BPoA) indicates that despite an increase of economic growth in certain African LDCs, particularly the oil producers, social development remains low. However, since the global economic and financial crisis, economic growth within those countries decreased significantly (UNCTAD 2009). Highlighting the Human Development Index[2] (HDI) value for African LDCs in 2006 - which is 0.44 compared to 0.48 for all LDCs and 0.52 for all

[1] There are currently 33 African LDCs out of 49 global LDCs. These are Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tomé and Príncipe, Senegal, Sierra Leone, Somalia, Sudan, Togo, Uganda, United Republic of Tanzania and Zambia (UN-OHRLLS, August 2009). For further information on how to identify LDCs, see annex 7.

[2] The HDI is an index between 0 and 1 that ranks the human development of most countries in the world. In doing so, it combines three basic dimensions: Life expectancy, education and the standard of living measured by the countries´ gross domestic product (GDP). In this regard, a high index value for a certain country implies a high human development; the world's average human development for 2006 is 0.75 (UNDP 2008).

African countries - clearly marks the urgent need of African LDCs to foster their social development (UNDP 2008).

BOX 1. Internationally Agreed Development Goals (IADGs)

IADGs are a set of specific goals, many with concrete time bound quantitative targets, of the UN Development Agenda. They summarize the major commitments of the 34 global summits and conferences held since 1990 on different aspects of global development challenges. Their most famous framework are the goals of the Millennium Declaration, the MDGs. Another important development framework, especially for LDCs, is the BPoA.

The **MDGs** are eight goals to be achieved by 2015 that are meant to respond to the world's main development challenges. They derived from the UN Millennium Declaration that was adopted by 189 nations and signed by 147 heads of state during the UN Millennium Summit in September 2000. The eight goals are broken down into 21 quantifiable targets and 60 indicators.

Goal 1: *Eradicate poverty and hunger;*
Goal 2: *Achieve universal primary education;*
Goal 3: *Promote gender equality and empower women;*
Goal 4: *Reduce child mortality;*
Goal 5: *Improve maternal health;*
Goal 6: *Combat HIV/ AIDS, malaria and other diseases;*
Goal 7: *Ensure environmental sustainability and*
Goal 8: *Develop a Global Partnership for Development.*

The **BPoA** derives from the need to focus more on the special needs of LDCs, as they are the most vulnerable countries in the international community. It is the successor of two Action Programmes, the Substantial New Programme of Action (1981) and the Paris Declaration and the Programme of Action for the LDCs (1990), which were the outcome of the first and second UN Conference on the LDCs. The BPoA was the outcome of the third UN Conference on the LDCs, which was held in Brussels in May 2001. It was endorsed by the UN General Assembly in its resolution 55/279 of July 2001. The BPoA was adopted for a ten year period (2001-2010), aiming at the improvement of human and social conditions of the populations of the LDCs and to provide a framework for partnership between LDCs and their development partners. The overarching goal of the Programme is "*[…] to make substantial progress towards halving the proportion of people living in extreme poverty and suffering from hunger by 2015 and promote the sustainable development of the LDCs*". In converting this goal into practice, the BPoA contains 30 international development goals, including those contained in the Millennium Declaration. Their actions and commitments are articulated in seven interlinked areas.

1) *Fostering a people-centered policy framework;*
2) *Good governance at national and international levels;*
3) *Building human and institutional capacities;*
4) *Building productive capacities to make globalization work for LDCs;*
5) *Enhancing the role of trade in development;*
6) *Reducing vulnerability and protecting the environment and*
7) *Mobilizing financial resources.*

Source: Fukuda-Parr 2008; UN Millennium Development Goals, October 2009; UN-OHRLLS, October 2009

However, broad improvements in social development will not occur unless the poor and disadvantaged receive wider access to basic services such as education, health, safe

drinking water and improved sanitation (UN 2005). Therefore, the BPoA Mid-Term Review recommends that governments should strengthen their basic services.

In order to encourage the progress of achieving the MDGs, the goals of the BPoA as well as broader growth and development objectives in general, effective provision of basic services is essential. Moreover, as African LDCs are also characterized by inequalities in access to basic services (World Bank 2004), this seems to be a serious difficulty in achieving those goals. Therefore, fostering the equality[3] in access to basic services could be an additional factor for promoting growth and development in these countries.

Different reports and studies (ECA 2007a; ESCAP 2007; Mehrotra et al. 2000; World Bank 2004) have identified several problems in providing the public in the developing world with adequate basic services. Beside the lack of access, not surprisingly, the quality of provided services is a matter of concern. In this regard, four major failures within the quality of basic services can be identified: i) dysfunctionality (positions are not filled, staff is not reporting to work, and/ or is not responsive to "clients"), ii) low technical quality, iii) non-responsiveness to local needs, and iv) no service controlling and follow-up (there is only little monitoring and evaluation, therefore lack in effective innovation and improvement in the productivity of service delivery) (World Bank 2004). In addition, accessibility to basic services remains one of the main problems, especially for socially disadvantaged people (UN 2005). As the World Development Report (WDR) 2004 reveals, only eight percent of the poorest fifth of the population has access to safe drinking water in Ethiopia, while about 63 percent of the richest fifth does. In this regard, the rural-urban gap is of certain interest: In Africa only half of the rural population has access to safe drinking water and improved sanitation services (WSS). Furthermore, the WDR 2004 shows that people who are poor or living in rural areas often pay higher prices to water sellers than the better-off pay to utility providers; the same applies also when compared on a global scale: According to WaterAid (2007), slum dwellers in Dar es Salaam (Tanzania) pay a price for

[3] The concepts of equity and equality are often used interchangeably. The perception of equality used within this study can be seen in sub-chapter 2.3.

a square meter of water which is around 12 times higher than people living in an apartment in New York downtown[4]. Besides, the majority of the poor even have to walk a long distance for the purchase of water (mostly children and women). This picture of unequal basic services is also reinforced by a recent study undertaken by the UN Economic Commission for Africa (ECA) (forthcoming) on social inclusion and its position within the MDGs´ framework.

As the lack of access to basic services can at the same time be the result and the cause of poverty (UNITAR n.d.), it is a major concern towards achieving IADGs. Given difficulties in assessing the quality of basic services across countries, this study uses an approach which measures if basic services "work" by assessing their equality. Although the quality of basic services is crucial for achieving broader social and economic development objectives, the non-discriminatory and equal accessibility to basic services should be at first stage when improving services towards such goals. Therefore, the following research design will focus on the accessibility aspect of basic services.

In this regard, the literature discusses various alternatives in providing broader access to basic services in the developing world. Starting with the classical public service provision by the state, this ranges from state reforms like decentralization or setting new institutional arrangements for basic service delivery such as community-based service provision to private sector participation (PSP) such as Public-Private-Partnerships (PPPs), contracting-out or privatization of public services. However, academic efforts so far have not identified any blue-prints for institutional set-ups or service delivery arrangements for a broad basic service provision that work (see for example Ahmand et al. 2005; Jütting et al. 2004 for decentralization/ Birdsall and Nellis 2003; Clarke et al. 2004; Prasad 2006 for PSP/ World Bank 2003 in general). This is not surprising, as cases within and between countries differ and mechanisms that work may vary from case to case. For example, SSA's first

[4] The average price for a square meter of water in the slums of Dar es Salaam is around 4 GBP, while the price for the same amount of water in the United States is 34 pence – without taking income disparities into consideration (WaterAid 2007).

experience in PSP in the provision of water services in Côte d´Ivoire was relatively successful, while PSP in Gambia did not work and the lease contract had been terminated after two years (OECD 2009). Another example of privatizing water in Cartagena, Colombia, has led to improved services and access for the poor, while a similar arrangement in Tucuman, Argentina, led to riots in the streets and a withdrawal of the concession (World Bank 2003).

A first literature review on successful cases in the developing world (Chile: Bitrán and Arellano 2005; Bolivia, South Africa & Vietnam: Trémolet and Hunt 2006) in the provision of WSS shows that it seems those cases have something in common: sound sector policy frameworks. This first crude observation is supported by Kauffmann and Pérard (2007: 15), who reveal that a *"[…] well defined institutional environment is a key condition of success […] in water infrastructure"*. Furthermore, this finding is also reinforced by a World Bank study (Trémolet and Hunt 2006) on pro-poor water sector regulation as well as the WDR 2004, which are stating the need for a sound policy framework in order to increase equal access to basic services in general and WSS particular. Therefore, policy design could be one effective trigger to influence equality in access to basic services.

In addition, it might be particularly interesting to know how social and economic theory can help to design basic services that benefit all. In this regard, the theory of (global) public good provides an adequate framework to assess the status of basic services, as it can be applied to identify how to provide basic services that work and how policies need to be designed in order to promote equality in access to basic services.

1.1 Objective of the study

The objective of this study is to assess the degree of inequality in access to basic services within African LDCs as well as their policy frameworks in order to contribute to the design of policies to enhance progress towards the targets of IADGs such as the MDGs and the BPoA. The study does so by drawing on an empirical analysis using Demographic and

Health Survey (DHS) data of the level of inequality in access to basic services across a subset of African LDCs. Furthermore, the study analyses policy frameworks of WSS from two selected countries in order to identify policy factors that foster the equality in access to basic services. The analysis will be complemented by the question whether basic services are (global) public goods and reflect findings by means of the theory of public goods in order to foster the equality in access to basic services.

An empirical analyses of a subset of 11 African LDCs allows the identification of good and poor performers, providing best practice cases with the opportunity of peer learning. Based on the mentioned activities, policy recommendations will be developed in order to overcome inequality in access to basic services in African LDCs and contribute to the ongoing debate on social development and basic service delivery in African LDCs in general as well as to the discussion on future activities evolving out of the BPoA, which will be determined by the end of 2010.

In doing so, this study does not call for a one-size-fits-all policy framework, since policies need to recognize their countries´ unique social and economic situation. This underlines the need of sector policy frameworks to be embedded in national development plans or Poverty Reduction Strategy Papers[5] (PRSP) (vertical coherence) (ODI 2004a, 2002; WSP 2003). Besides, designing sound policy frameworks in order to increase the equality in access to basic services requires coherent sector policies, which are coherent in themselves and conclusive in relation to other relevant sector policies (horizontal coherence), as well as a certain responsiveness to the needs of the services stakeholders and target groups (inclusiveness). Furthermore they need to be monitored in an effective manner, being implemented to an adequate degree and having a reliable public expenditure system.

[5] The aim of the PRSP framework is to provide an overwhelming policy document for planning and implementing poverty reduction strategies in a given country. In doing so, PRSPs have become in the last 20 years the basis for policy dialogue in most African LDCs.

1.2 Definition, methodology and data

Basic services as defined in this study include a wide range of services such as education, health, water and sanitation[6]. Given this broad range, this study will focus on WSS. This choice is due to its interconnections and direct as well as indirect impacts on other sectors such as health and education (SIWI and UN Millennium Project 2005; Guarcello et al. 2004). In general, the principal benefits of improved access to WSS can be divided into three categories: i) health, ii) convenience (time and energy saved), and iii) economic use of water (food and non-food income) (Marcus et al. 2004) or, as Lee Jong-Wook the former WHO Director-General states:

> "Access to basic sanitation and adequate drinking water makes people healthier and more economically and socially productive" (cited after UNITAR n.d.: 15).

In this regard, experiences from the developed world have shown that the greatest advances in increasing life expectancy and reducing infant mortality rates[7] resulted from an increased provision of WSS. Moreover, a recent poll conducted by the *British Medical Journal* voted the provision of "clean water and sewage disposal" as the greatest advance in medicine of the last 150 years, outscoring such intellectual achievements as antibiotics, vaccines and the discovery of the structure of DNA. In this regard, poor access to WSS has also significant effects in terms of school attendance (Nokes and Bundy 1993) and the attainment of educational goals (DFID 2007). Furthermore, social development is more closely linked to access to water and sanitation than any other development drivers, including spending on health or education, or access to energy services (UNDP September, 2009).

According to a technical paper by the Intergovernmental Panel on Climate Change (IPCC) (2008), especially the provision of safe drinking water will be significantly affected in the

[6] This definition refers mainly to the concept of basic social services that gained momentum during the World Summit for Social Development in Copenhagen in March 1995.

[7] According to UNICEF (2006), in countries with high infant mortality rates such as most African LDCs, the lack of access to improved WSS kills more children than pneumonia, malaria and HIV/ AIDS combined. In this regard, especially diarrhoeal disease, which is mostly related to water, sanitation and hygiene, represents one of the leading causes of morbidity and mortality in developing countries (Prüss et al. 2002).

next years by the climate change, as fresh water resources are highly vulnerable. In this regard, especially in African countries climate change has the potential to impose additional pressure on water availability and accessibility, which clearly exemplifies the need for the ensuring of sustainable and equal access to water services in order to achieve IADGs.

In this regard, adequate housing – mostly in urban areas - is often a precondition for access to improved WSS and hence has similar effects on citizens as well as additional benefits such as improvements in health (WHO 2004) and quality of life (Cattaneo 2009). However, housing services are mainly limited to urban areas and therefore represent only around one fourth of the population within African LDCs. Furthermore, housing is more often the responsibility of the people then the state, but may be facilitated by appropriate laws and social housing in urban areas (UNITAR n.d.). Because of this, housing will not be considered as a basic service and therefore will not be included in the analysis.

While focusing mainly on water and sanitation services, this study assumes that other basic service sectors such as health and education follow mainly a similar policy logic and, therefore, results of the analysis within the water and sanitation sector are representative for basic services in general to a certain extent.

However, the denotation of access to basic services is from an analytical point of view ambiguous. Hence, this study will divide this term analytically into effective and real access. Effective access to basic services as defined in this study is mainly determined by the price of the provided service. This implies that a service such as safe drinking water supply might be available but due to its costs people decide to use an unimproved, but less expensive source. Real access will be determined by the distance to the provided service. However, this separation works only within the provision of water services, for sanitation real and effective access will be considered as one. Due to the nature of DHS data this distinction will only be of analytical nature, as a differentiation within the empirical analysis is not possible (DHS is only asking for the major source of water for members of

the household and for the time needed to get to the water source for drinking water) (for a more detailed view on the used indicators see annex 2). The same applies for the distinction between access and utilization, analytically this need to be separated, however, within the empirical analysis it will considered as one.

The first part of the analysis within this study will be based on DHS data of African LDCs. In this regard, 11 African LDCs with DHS data from more than one survey was identified in which the last round was conducted after 1999 and with sufficient data material within the DHS database. By representing each sub-region of the continent, except North, these countries are meant to represent the diversity within African LDCs.

TABLE 1.1 List of African LDCs incorporated in the study*

Sub-region	Countries [no. of countries]
West	Benin, Burkina Faso, Mali, Niger** [4]
Central	Chad [1]
East	Ethiopia, Madagascar, Rwanda, Uganda [4]
Southern	Malawi**, Zambia [2]

* ECA classification
** Due to data inconsistencies within the country dataset, only water services will be analysed.

The population within the sample countries will be stratified into groups according to economic status, place of residence (rural/ urban) and sex of the head of the household. This proceeding allows assessing the degree of inequality in access to WSS for those socio-economic groups. In addition, concentration curves[8], as well as a concentration index[9] will be calculated (for further details see annex 3). In order to get a dynamic picture of inequalities and explore trends, two DHS rounds will be used.

[8] A concentration curve is a single graphical representation, which displays the cumulative percentage of the access variable (y axis) against the cumulative percentage of the households (x axis), ranked by living standards, beginning with the poorest and ending with the richest (ECA 2008b).
[9] The concentration index is a numerical value (analogous to the Gini coefficient for income distribution) ranking from 1 to -1, which shows the extent of inequality (ibid).

On the basis of the DHS analysis, good and poor performers within the sample countries will be identified. This will provide a solid base for a desk review on how policy frameworks of selected study countries affect the equality in access to basic services. The countries for the policy-analysis will be selected based on regional distribution as well as their performance within the DHS analysis. The main focus of the policy-analysis will be on coherent, inclusive and effective policy frameworks. Therefore, the analytical framework used for this study (see annex 1) was adapted from the Sector Policy Assessment of the European Commission Guidelines for Support to Sector Programmes (2003).

The results of the policy-analysis are meant to identify which policy-factors determine the equality in access to basic services in African LDCs and help to develop policy recommendations in order to overcome observed shortcomings. In this regard, this study assumes that the coherence, inclusiveness and effectiveness of a sector's policy framework are important factors on which an increase of the equality in access to basic services depends. A coherent sector policy as defined in this study should be derived from the national development plan or PRS. This vertical coherence is meant to ensure the sectors´ embededdness in the overall development objectives of the respective country. In order to avoid trade-offs or inconsistencies, the horizontal coherence between sectors and sector objectives is of equal importance. Furthermore, the sector policy should be consistent and clear in itself, stating all sources of funding for its mentioned activities as well as giving a clear understanding of roles and responsibilities within the sector. The inclusiveness of a sector policy, as defined in this study, asks whether the policy provides specific targets for inequality in access to basic services and assures the government's commitment in achieving those targets by a clear statement of the intended level of public subsidy. In this regard, the policy should identify target groups and map out a strategy for reaching them. In addition, the sector policy needs to ensure its inclusiveness by being drawn up within a structured process of consultation and involvement of relevant stakeholders. Beside those areas of interest, an effective system of fiscal planning and funds release as well as a sound concept for monitoring and measuring achievements within the sector need to be in place.

Consecutively, this study will apply the theory of (global) public goods on observed findings in order to answer the question whether basic service are (global) public goods and the implications thereof on the design of policies for equal basic service provision.

1.3 Limitations of the study

At first hand this study is limited to the data used in the analysis. In this regard, as table 2.2 shows, a systematic differentiation within the DHS analysis between real and effective access was not possible; the same accounts for access to and utilization of basic services. However, this study tries to overcome these shortcomings by addressing those issues in the data interpretation. Other important items worth mentioning are the dissimilar definitions of used indicators by some DHS rounds as well as the availability of some indicators within certain DHS rounds. By estimating the service coverage (see annex 6) for some DHS rounds this study tried to address these issues adequately. But the high amount of missing values within some questions and indicators made it hard to produce reliable stratifications in some few cases (in the case of sanitation services within Malawi and Niger, the results of the DHS analysis were found to be not reliable, hence they were excluded from the analysis). Therefore, results from the DHS analysis should rather be seen as providing tendencies in the surveyed sectors, nor absolute and static results, as this study measures inequalities within access to basic services which is a process and not a state as the level of access in general.

Furthermore, the definition of access to safe drinking water and improved sanitation services (see annex 2) used within this study differs from many official statistics, since most of them provide varying definitions.

Besides, the case study analysis implies that findings made in this regard can be applied to other cases within African LDCs, thus it is not calling for a one-size-fits-all solution. Therefore, applications of policy recommendations are general and always need to be seen from a country specific view point when implemented.

1.4 Structure of the study

This study is structured as follows. Section two introduces the theory of (global) public goods, which will serve as an overall frame for the whole study. Chapter three presents some evidence and recent discourses on basic service provision in general and equality issues concerning the provision of basic services in particular. Furthermore, this section will also give a first overview on coherent, inclusive and effective policy frameworks and their implications for the delivery of basic services. Chapter four involves some empirical work using DHS data assessing the degree of inequality in access to WSS in African LDCs. Section five will draw on one poor performer and one good performer from the analysis in chapter four and conduct a policy-analysis in order to identify potential key determinants of the policy level for influencing the equality in access to basic services. In this regard, special attention will be paid to coherent, inclusive and effective policy frameworks. Based on the results of chapters three, four and five, chapter six will give a reflection on the findings, applying the theory of (global) public goods as introduced in chapter two. In this regard, special attention will be paid to answer the question whether basic services are (global) public goods and the significance for the design of adequate policies for those. The last chapter will conclude the findings and give an outlook on how to foster the equality in access to basic services in African LDCs.

CHAPTER 2

Theoretical Framework

2. Introduction

This chapter aims to provide a comprehensive overview of the concepts of (global) public goods as well as related theorems. Starting with their emergence, an introduction of new approaches on how to classify public goods will be given. In doing so, this chapter will focus on relatively new theoretical concepts that gained momentum since Kaul et al.'s ground-breaking publication "Providing Global Public Goods" in 2003. Consecutively, this chapter will discuss how to provide global public goods and give a brief summary on major outcomes.

2.1 What are public goods?

In their well recognized publication "Managing Global Public Goods", Kaul et al. (1999) describe the case of weekend-shoppers around the globe who are carrying shopping carts filled with different goods such as bread, rice, fruits, vegetables, perhaps sweets and toys. However, none of those weekend-shoppers have been shopping for traffic lights, although without them some might even have serious accidents on their ways to the bazaars or supermarkets. The reason why nobody shops for traffic lights is that everybody is expecting to find them outside, as a public good. Inside the markets, shoppers concentrate their attention rather on private than on public goods. As Kaul et al. (1999: 2) conclude "*for their well-being people need both private and public goods*". This section focuses on the world outside the air-conditioned supermarkets and bazaars, it focuses on public goods[10].

[10] In this regard it might be helpful mentioning that public goods can benefit (e.g. traffic lights) or harm (e.g. air pollution) their consumers. In case they get harmful, the literature does often talks about public "bads". However, this study uses the term public goods for both phenomena.

2.1.1 The classical concept of public goods

In examining the concept of public goods, it has to be noted that the literature in this field is so vast and diverse that the definition of public goods brings to mind a broad variety of different issues, each relying on their very specific models established on their very own set of assumptions (Shamnske 1991). Therefore, the following sub-section will provide a brief historical but non-technical overview on the emergence of the concept of public goods as well as related theorems.

The overall idea of public goods has a long intellectual history, which can be traced back as far as 1651 to Thomas Hobbes´ (1986) Leviathan. In his classical work he argues that civil order was a public good that could only be supplied by a sovereign with a monopoly in the use of force. In 1739, David Humes´ (2004) book "A Treatise of Human Nature" was published, dealing with the provision of the "common good". Along the road, classical economists such as Adam Smith or David Malthus drew attention to the need for concerted action to provide goods that benefit a community (Sagasti and Bezanson 2001). In his well known work "The Wealth of Nations", Adam Smith (2003) stated that the virtuous circle[11] could only be attained if complemented by essential public goods provided by a benevolent and effective government. In doing so, Smith introduces a list of so called essential public goods which include not only national security or the maximum extension of education, but also "certain public works" such as roads, canals, bridges, and water supply. Thus the idea of public goods is well established in economic and social theory.

One of the most important stepping stones in developing a systematic theory of public goods is Paul Samuelson's 1954 article "The Pure Theory of Public Expenditure". In his very technical article Samuelson identifies two defining characteristics of a public good: non-rivalry and non-excludability. In general terms, non-rivalry implies that any person's consumption of a certain public good has no effect on the amount of the availability of

[11] In book III of "The Wealth of the Nations", Adam Smith (2003) writes that the building up of capital is an essential condition for economic progress. By saving some of what has been produced, investments in new labour-saving equipment can be made. The more we invest, the more efficient our production becomes. This process is what he calls, in this context, a virtuous circle.

others. Non-excludability means that it is either not possible or prohibitively costly to exclude those who do not pay for the good from consuming it. So, once a good has been produced its benefits – or harm - accrue to all (Samuelson 1954). In elaborating this, consider again Kaul et al.'s traffic light example. If one single person safely crosses the street at night this does not distract other persons in utilizing traffic lights. This exemplifies that traffic lights are non-rivalrous in consumption. In doing so, it would be extremely difficult, socially and politically dubious as well as extraordinarily expensive to reserve the usage of traffic lights for one person or group. Thus traffic lights are non-excludable or excludable only at very high (social and political) costs (Kaul et al. 1999).

Since Samuelson's depiction of the concept of public goods, a wide body of criticism on the strict economic definitions and notions of public goods has been developed (see Ver Eecke 1999 for an overview of the critics on Samuelson's concept). In this regard, it needs to be noted that Samuelson himself maintained that a public good was meant as an ideal theoretical concept that could not be strictly applied to all relevant policy matters. In his view public goods were dependent upon political consensus and determined by qualitative ethical factors (Sagasti and Bezason 2001). He was also very cautious in his claims how to define and conceptualize public goods.

> "[…] I am rash enough to think that in almost every one of the legitimate functions of a government that critics put forward there is to be a found a blending of the extreme antipodal models. […] Economic theory should add what it can to our understanding of government activity. I join with critics in hoping that its pretentious claims will not discourage other economic approaches, other contributions from neighboring disciplines, and concrete empirical investigations" (Samuelson 1999: 356).

Only a few goods can be considered purely public, such as high seas, the ozone layer or the light of a lighthouse. Those goods apply to both of the defining criteria, as introduced by Samuelson (1954). However, most goods are of impure nature, meeting only parts of the mentioned criteria. In line with this, it might be useful to consider pure public as well as private goods as the extremes of the public-private continuum (Kaul et al 1999). In this

regard, impure public goods can be divided into two categories: i) club goods (goods that are non-rivalrous in consumption but not non-excludable) (see for example Corners and Sandler 1996) and ii) common pool resources (goods that are mostly non-excludable but not non-rivalrous in consumption) (see for example Hardin 1968; Sandler 1997). When confronting Samuelsons´ criteria with each other, this results in a two-by-two matrix as can be seen in table 2.1. In this notion, club goods are provided when users come together to provide a shared good which is based on an agreed fee, toll or tax. This is particular the case for the internet, which normally requires a certain fee for utilization. Common pool resources are goods where users cannot be excluded from utilizing them, in contrary, they tend to be overused as the well known example of the "Tragedy of the Commons" (Hardin 1968) exemplifies. A good example for common pool resources are rivers, since very high costs are necessary to exclude people from using them. But the more people wash for example their clothes inside the river, the more polluted it gets.

TABLE 2.1 Conceptual boundaries of public goods

	Rivalry consumption	**Non-rivalry consumption**
Excludable	Private Good	Club good
Non-excludable	Common pool resources	Pure public Good

Source: Adapted from Stalgren 2000: 9
Note: The grey shaded areas are considered to fall under the definition of public goods as used within this study

There are two concepts closely related to the above mentioned defining criteria: externalities and marginal costs. Marginal costs are a conceptual apparatus used in micro-economics; they are defined as the extra costs arising with the consumption of on extra unit of a good. By using this apparatus, the criterion of non-rivalry is met when the marginal cost of additional consumption is zero. It is clear that anyone can consume a good without any limits once the marginal cost of additional consumption is zero (Stalgren 2000).

Externalities, or third-party effects, arise when effects on an action are not borne by the actors directly involved, but by someone else. For example, educating women has significant effects on child mortality and on decelerating population growth; but polluting a river – in contrast - can harm the nature as well as human beings (Kaul et al. 1999). Hence, externalities can be both positive and negative. Externalities are a problem because the costs or benefits associated with them are not included in the price of the good. If the cost associated with a negative externality is effectively being attributed to the actor behind the externality, then the externality has been internalized and financed directly by that actor himself (Sagasti and Bezanson 2001). Positive externalities are being internalized when the values added by an actor's incentive are confirmed under the control of that same actor (Coase 1937).

In addition, because of their being non-rivalrous in consumption and having the attribute of non-excludability, public goods often face supply problems. In this regard, there is a major problem that is affecting the provision of public goods: free-riding. Free-riding can directly be associated with the non-rivalrous and non-excludable criteria for public goods. It was introduced by Garrett Hardin (1968) in his influential essay "The Tragedy of the Commons", but can be traced back until the founding figures of western philosophy. In Hardin's essay, shepherds are sharing a common pasture where each single shepherd tries to enlarge his herd without a limit – seeking to maximize his utility. This, however, results in overgrazing and land degradation, affecting all herdsmen who are making use of the pasture. That is what he calls a tragedy, stating the paradox that freedom within a common brings ruin to all:

> "Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without a limit – in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the common" (Hardin 1968: 1244).

Hardin pictures the consumers of common pool resources as trapped within a situation they cannot change by themselves. Thus in his notion solutions have to be imposed on them by external authorities.

As noted before, Hardin was not the first who mentioned this problem of collective action. In her Nobel Price wining work "Governing the commons", Elinor Ostrom (1990) refers to the Greek philosopher Aristotle, who observed long ago that "*[…] what is common to the greatest number has the least care bestowed upon it*" (Aristotle *Politics*, book II chapter 3, cited after Ostrom 1990: 2). Another foundation of this concept, she mentions, is Hobbe's parable of men in a state of nature[12], who are seeking their own good ending up fighting against each other. So, in general terms, free riding occurs if an individual actor takes part in the benefits of a certain good without contributing adequately to its production (Stalgren 2000).

The tragedy of the commons has often been formalized in a game theoretical model, the prisoner's dilemma game. The prisoner's dilemma displays a strategic situation where it is rational for each actor to contribute as little as possible to a common good in order to maximize his benefits. However, if all actors within the prisoner's dilemma would act non-rational, all would be better off (Dawes 1973).

In this regard, Mancur Olson (1968), in his well known work "The logic of collective action", argues that free-riding provides an incentive for individual actors to avoid contributing personal resources to common endeavours, as from the individual's rational perspective there is no reason why a single person should pay for a good and express preferences, since doing so would permit the service provider to demand payment. This results in miscommunication of preferences to suppliers and the mismatch between supply and demand of a certain public good. As a result, public goods are undersupplied and resource allocations are suboptimal (Kaul et al. 1999).

[12] In "Leviathan" Hobbes introduces the concept of the state of nature. He postulates that "*[…]during the time men live without a common power to keep them all in awe, they are in that condition which is called war; and such a war as is of every man against every man*" (1986, Chapter XIII). This state describes the natural condition of human beings – a kind of synonym for anarchy - before the rule of law comes into being.

Traditionally, the provision of public goods had been in the hand of the nation-state. However, in the shadow of globalization and emerging vulnerabilities and interdependencies between nations and world regions (Nuscheler et al. 2006), goods whose externalities reach beyond state borders become more and more an issue of importance, as neither the current economic and financial crisis, the food crisis nor the destruction of the ozone layer limit themselves to state borders.

2.1.2 Global public goods

The concept of global public goods is manifold, including different interpretations by different authors. Moreover, wide bodies of literature and related concepts have been published in the last decade. However, this chapter will primarily focus on the concept of global public goods that gained momentum since UNDP's ground-breaking publications "Global Public Goods" (Kaul et al. 1999) and "Providing Global Public Goods" (Kaul et al. 2003). Subsequent, in 2003, international development agencies leaded by the French and Swedish governments established the International Task Force on Global Public Goods (ITFGPG). The ITFGPG was asked to further clarify and discuss the widespread concept of global public goods; its final report has been published in 2006 (ITFGPG 2006).

Before talking about global public goods, there is a need to differentiate between related concepts of public goods, such as local, domestic, regional, global and international public goods. Scott Barrett (2007, cited after ITFGPG 2006: 14) provides a clear distinction between those concepts by looking at their beneficiaries:

- A local public good benefits all members of a local community, with the possibility of including the citizens of more than one country.
- A national public good benefits all the citizens of a state.
- A domestic public good benefits all members of a community situated within a single state. National public goods are domestic public goods, but domestic public goods do not have to be national public goods.
- A regional public good benefits countries belonging to a geographic territory.

- A global public good benefits all countries and, therefore, all persons.
- An international public good benefits more than one country. Global and regional public goods are both international public goods.

So in this regard, public goods are being separated by considering those who benefit by their provision. In addition to the classical criteria of non-rivalry and non-excludability, this seems to be a helpful criterion. However, in terms of global public goods Kaul et al. (1999) note that we can already consider a good to be global when its external effects are relevant for more than one world region or more than one set of countries, such as the G-8 or the G-77. Furthermore, Sandler (1999) adds two other important aspects of global public goods; their benefits or harms should not only be consumed by a certain population group and become intergenerational. With the last aspect, he introduced the concept of sustainability into the debate (Martens and Hain 2002).

With this in mind, traffic lights have found their equivalent at the global level, which can be exemplified by looking for example at international communication or transport regimes. Such international "traffic rules" existed for many years, but began to expand in the mid 19th century when technology advances enabled us to reach more easily across borders (Kaul et al. 1999). In addition, goods such as the ozone layer, which are so called "pre-existing" global public goods, have not been produced by humans - they exist naturally. Moreover, there are public goods that constitute policy outcomes such as health or financial stability, which have turned into global public goods.

> "They will, in large measure, only emerge - and exist locally and nationally - to the extent that all countries, or certain international key players, also help produce them. For example, if somewhere there is an under-supply of financial stability, many other countries, even the world as a whole, may suffer, too" (Kaul et al. 1999: 12).

In their conclusion, Kaul et al. (1999) distinguish between three types of global public goods: i) natural common goods (e.g. ozone layer), ii) human-made global commons (e.g. universal norms and principles, such as universal human rights) and iii) policy outcomes (e.g. financial stability or health). Most recent works (Kaul et al. 1999, 2003; Sagasti and

Bezanson 2001; Sandler 2001; Barrett 2007; ITFGPG 2006) are focusing primarily on the third category of global public goods.

Overall, we can conclude that the emergence of global public goods is not a new phenomenon, as such goods like international regimes have been existing for some time yet. However, they have been traditionally focusing on issues between countries, such as for example the regulation of a country's access to high seas or border tariffs. The focus on the third category of public goods can be considered as a relatively new phenomenon which is primarily addressing "behind-the-border-issues" (Kaul et al. 1999), calling for international cooperation on domestic policy concerns. So with the concept of global public good, the domestic policy arena has been extended to the global sphere, combining global challenges with domestic policy actions.

However, the introduced approach, like other similar approaches that have been formulated in the last years (e.g. Kanbur et al. 1999; World Bank 2001), just takes up the classical concept of public goods and shifts it to the global sphere. In this regard, some minor aspects (spatial and intergenerational) have been added, but major questions such as distributional effects, power or motivation have been ignored (Martens and Hain 2002). In addition, this textbook-like definition of global public goods often fails to capture the reality, pointing out that (global) public goods are largely a matter of (policy) choice and cannot be adequately reflected by the technical criteria mentioned in this and the earlier sub-chapter.

2.1.3 An advanced concept of global public goods

Possibly as a result on critics that have emerged since the publication of "Global Public Goods", Kaul et al. (2003) tried to advance their initial global public goods concept by giving more attention to the publicness of a global public good, making it rather a political than a technical concept. Kaul et al. (2003) claimed in their consecutive study that the notion whether a good can be declared as public or not does change over time and alters in different places, as the publicness as well as the privateness of a certain good is a social

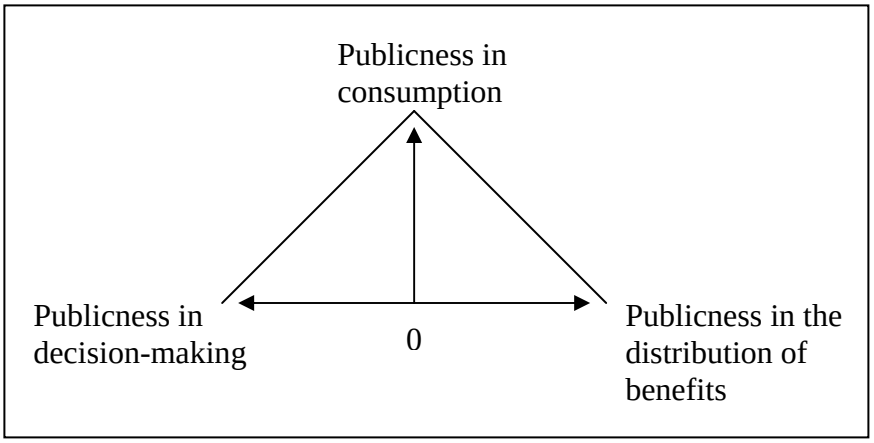
construct (barring some cases such as sunlight), which is largely determined by policies and other collective human actions. In accordance to this redefinition it can be stated that "*[…] public goods are nonexclusive, put differently, de facto public in consumption*" (Kaul and Mendoza 2003: 81).

The classical approach on how to define public goods has been presented in chapter 2.1.1 (see table 2.1). In this regard, consider a new example: land. Land is a good of rival and excludable nature and by having clear property rights it becomes a private good of recognized and reliable stature. However, in some traditional communities land is still being managed as a common good by being open for grazing or hunting to all. This confirms that excludable resources do not necessarily have to be made private (or public), but in doing so it is a (public) policy choice, aiming in this case at ensuring the good's sustainability (Kaul and Mendoza 2003). Therefore, the classical approach on public goods misses a basic point: Whether a good appears on the market or in the portfolio of state agents is largely a matter of policy choices. In this regard, Kaul and Mendoza (2003: 89) define public goods as such goods "*[…] that are in the public domain because they are technically non-excludable, because they are placed or left there by policy choice, or because they are allowed to be there inadvertently*".

The publicness of a certain good, in this regard, has been formalized within a triangle of publicness (Kaul 2001) (figure 2.1). It consists of three criteria: i) publicness in consumption, ii) publicness in decision-making, and iii) publicness in the distribution of benefits. In this regard, the main distinguishing criterion for public goods is their publicness in consumption, which means the non-exclusiveness of the consumption of a certain public good. The publicness in the distribution of benefits represents the extend to which various consumers of public goods gain benefits. Thus publicness of consumption is distinct from publicness in the distribution of benefits. The third criterion, publicness in decision-making, displays the participatory nature on the choice which goods to place in the public domain (Kaul 2001). Combining these three criteria results in an ideal triangle of publicness, showing a "perfect" public good which "*[…] is public in consumption,*

based on decisionmaking that fully meets the condition of the generalized equivalence principle, and with net benefits evenly distributed across diverse population groups" (Kaul and Mendoza 2003: 92).

FIGURE 2.1 Triangle of publicness

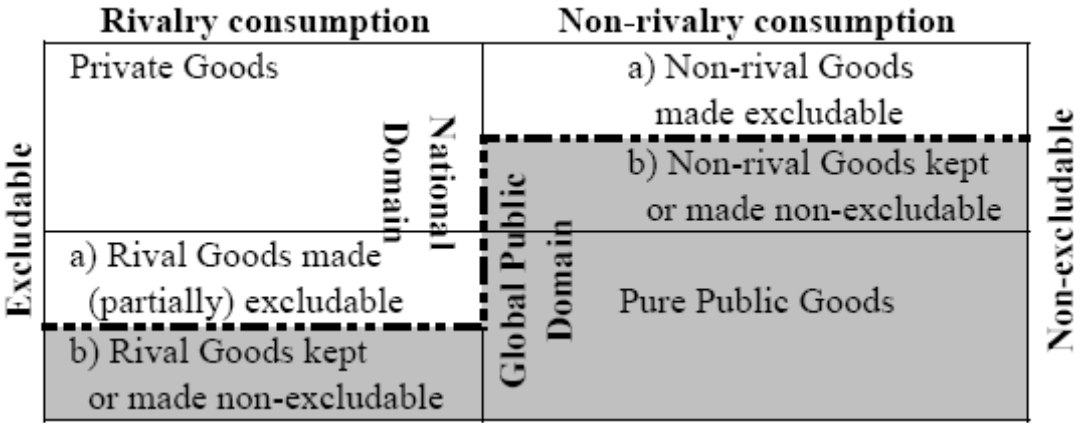


Source: Kaul 2001: 6

In the case of global public goods, the expansion of the theory of public goods mentioned earlier, becomes even more important, as such goods "*[…] require and create commonality in a world of extreme disparities*" (Kaul and Mendoza 2003: 95). In their earlier concept of global public goods, Kaul et al. (1999) refer to a definition which determines goods as already public and global. However, as the previous part of this sub-chapter has shown, many goods can be made global, public or both by human actions and/ or policy choices.

Influenced by the fact that many domestic public goods in the last years have gone global, Kaul and Mendoza (2003) further developed the classical conceptual boundaries of public goods (table 2.1) and applied it on the global and national level. In this regard, table 2.2 classifies global public goods primarily by their human-made (social) properties. According to their publicness and based on the considerations from table 2.2, a typology of global public goods has been developed that differentiates between the nature of their benefits and the type of their publicness.

TABLE 2.2 The de facto mix of national and global public goods



Source: Kaul and Mendoza 2003: 98

Like in previous works such as Kaul et al. (1999), global public goods are distinguished by global natural commons, global human-made commons and global policy outcomes. In their original state global natural commons, such as the high seas, are rival in consumption and non-excludability. However, some commons have become managed access resources, such as the ozone layer. Overall, global natural commons are usually available for all to consume. This is what Kaul and Mendoza (2003) call free (managed) access. Global human-made commons, such as international norms, have free access, such as non-commercial knowledge, or limited access, such as patented knowledge – even though it is restricted in use, it is still in the public domain. Global policy outcomes, such as financial stability, are characterized by the universalization of essential private goods such as basic education or health care which are aimed to benefit "all" (ibid.). They are furthermore characterized by the invisibility of their benefits and costs, which form the core interdependencies between countries and people. In technical terms, those kind of goods tend to be non-excludable and, therefore, de facto inclusive and public (ibid.).

Overall, the rethinking of the conventional theory of public goods has shown various areas of advancement. The classical criteria, non-rivalry in consumption and non-excludability of benefits, do not necessarily stipulate whether a good is public of private, as those

attributes are related to policy choices and are, therefore, socially constructed. In the shadow of globalization and its impacts on nation-states many public goods have become global and, therefore, require international cooperation – widening the domestic policy arena to the global sphere. In addition, the triangle of publicness enables to address issues such as how publicness in consumption is matched with publicness in decision-making and with the equal distribution of a good's benefits.

2.2 How to provide global public goods?

Because of their publicness, all public goods, whether local, national, regional or global, tend to suffer from underprovision. For individuals it is often most rational to free ride, meaning to enjoy the good and let others pay. This problem of collective action is compounded at the international level, as there is a gap between externalities that are becoming more and more international in reach and the policy-making process which remains predominantly at the national level (Kaul et al. 1999).

If we consider the provision of global public goods as a multi-actor process, we have to rethink the current concept of optimal provision, as well as the analysis of the production process of public goods (Kaul and Mendoza 2003). This fact becomes more important when considering the manifold interests at the international level and the fact that there is no real equivalent to the nation-state at the global sphere. In this regard, many countries find themselves in so called "no exit" situations[13] (Hirschmann 1970, cited after Kaul and Mendoza 2003) pushing them into international cooperation.

In this regard, four so called "aggregation technologies" have been identified (Cornes and Sandler 1994, 1996; Kanbur et al. 1999). Aggregation, in this context, means the composition of an individual actor's contribution to the overall supply of a certain global public good.

[13] Hirschmann (1970) states that when people have no exit options – in terms of public goods: when they cannot refuse consumption, often the sole strategy for them is to seek a stronger "voice" and more direct participation (Kaul and Mendoza 2003).

Summation technology

This is the most common aggregation technology, where each actor contributes to a certain public good, mounting up to the overall level available to all (Sandler 2003). The production and accumulation of greenhouse gases is a good example for the summation technology. Each nation's contribution has the same relative effect on the total for a summation technology. So, every nation is "*[…] a perfect substitute for other […] [nations]. This perfect substitutability drives the motivation to free ride and the standard prediction of underprovision*" (Sandler 2003: 134f). It means that if one state strengthens its efforts to minimize emissions, according to micro-economic theory, there might be an incentive for other states to reduce their efforts in this regard. So, one state's reduction of efforts does abolish the other state's efforts to minimize emissions (Kanbur et al. 1999).

Weighted-sum technology

The weighted-sum technology like the summation technology summarizes each actor's contribution to a certain public good. However, not like in the case of summation, the weighted-sum technology weights each actor's single contribution. According to Sandler (2003), these weights are reflected in the marginal effects that one actor's contribution has on the total level in regard of the good. For example, if one country consumes acid rain, the extent of its consumption is determined by the distance to the producer of that certain good. So with weighted-sum technology, the provision of global public goods is no longer perfectly substitutable, as for the case of acid rain for some countries the incentives to strengthen their efforts to reduce acid rain are stronger than for others (ibid.).

Weakest-link technology

This is the technology where the smallest contribution determines the quantity of a public good. Take for example epidemic control: the degree to which an epidemic can be controlled is determined by efforts of the country which contributes the smallest amount – does a virus survive there, it can spread again (Kanbur et al. 1999). Free riding is not a problem for that kind of aggregation technology, as contributing nothing decreases the

quantity of a global public good for everyone to zero (Sandler 2003). In this regard, developing countries, and especially LDCs, are only able to afford a small contribution to the production of global public goods. This might impose the need for richer countries to subsidize their contributions (Vicary and Sandler 2002, cited after Sandler 2003). Therefore, it might be that weakest-link technologies diminish the problem of undersupply through financial redistribution between richer and poorer countries.

Best-shot technology

Within this technology the overall supply level of a global public good is determined by the largest contribution of a single actor; contributions below that add nothing (Sandler 2003). A good example for this technology would be the knowledge to heal a certain disease. Once there has been a cure discovered, all benefit from the already gained knowledge and other contributions become more or less irrelevant (Kanbur et al. 1999). Following Kanbur et al.'s (1999) considerations, best-shot technologies call for "negative" Official Development Assistance (ODA)[14], which means that financial flows, in this regard, need to be concentrated:

> "The developed countries should not transfer resources to developing countries, but, instead provide the activities at home and then allow the associated spillover benefits to be received by others" (Kanbur et al. 1999: 71).

This sub-chapter has so far shown how the provision of global public goods in the light of multi-actor processes can be separated by an individual actor's contribution to the good. However, this does mainly refer to the production site of global public goods and ignores the consumption site. Within the consumption site the main problem of provision is underuse, which means that a global public good exists, but some actors are unable to

[14] The OECD defines ODA as follows: Official planning administered with the promotion of the economic development and welfare of developing countries as the main objective, and which are concessional in character with a grant element of at least 25 per cent (using a fixed 10 per cent rate of discount). By convention, ODA flows comprise contributions of donor government agencies, at all levels, to developing countries and to multilateral institutions. ODA receipts comprise disbursements by bilateral donors and multilateral institutions. Lending by export credit agencies—with the pure purpose of export promotion—is excluded (OECD Glossary of Statistical Terms, October 2009).

consume it. Underuse in general can occur because of access problems which may result from a lack of means or formal restrictions (Conceicao 2003). When the production process of a certain global public good is scattered it may suffer from underuse as well as from underprovision. For example, the global public good of international financial stability suffers from underprovision, while the internet suffers from underuse.

2.3 Summary

This chapter introduced the classical debate on public goods, based on the defining criteria of excludability and rivalry. However, as the work done by Kaul and others (2003) has shown, these criteria are no longer adequately applicable, as the decision how to classify a good is rather is political than a technical one. This examination has shown that we can differentiate between two "schools of thoughts" within the global public goods debate, a positivist school whose followers are principally concerned with strictly defining global public goods and a constructivist school, which emphasizes different aspects of publicness that are mainly socially constructed, in global public goods (Langford 2009). In addition, this chapter introduced some problems of collective action, such as free riding, related to the provision of (global) public goods. In this regard, the creation of adequate provision technologies as well as public action, which are largely a matter of policy choice, can be seen as a means to overcome those problems.

CHAPTER 3

An overview of basic service delivery and equality: A survey of existing literature

3. Introduction

This chapter analyses various options for basic service delivery and their potential in fostering the equality in access to those services by drawing on evidence made by different studies and reports. The outline of the section is as follows: first an overview of basic service delivery in general will be given with a special emphasis on institutional arrangements in public service provision. This is followed by an analytical clarification of the concept of access to basic services, as used in this study. The next part examines aspects of inequalities in the provision of basic services as well as excluded socio-economic groups. The final part of the section deals with coherent, inclusive and effective policy frameworks as a possible means to foster equality in access to basic services.

3.1 Basic service delivery

Basic services, as defined in this study, include a wide range of services such as health, education and WSS. These basic services are of different types: WSS may require heavy infrastructure, while education and health imply important working costs as well as a high amount of human resources. In most countries, governments provide also a variety of other services ranging from administrative services such as issuing passports to police services. All those services are meant to contribute to poverty reduction and increased economic growth as well as social development in general (World Bank 2008a). However, some services – basic services - can contribute to such development objectives in a more effective and direct manner than for instance issuing a passport. Indeed, there is no doubt that the administrative capacity of a country's bureaucracy as well as the effective provision of public goods such as national security play an important role in poverty reduction and affect the provision of basic services in general (IMF 2002). Nevertheless, improved basic services have the advantage that they can directly contribute to

development outcomes. In doing so, they can, furthermore, serve as a form of social protection against different kinds of vulnerabilities such as different forms of life-cycle vulnerability, forms of structural vulnerability and vulnerability to economic, environmental, health or political shocks (Marcus et al. 2004). Therefore, improvements in basic services per se result in development outcomes (Marcus et al. 2004; Mehrotra et al. 2000; World Bank 2003). Furthermore, they are also meant to contribute to state legitimacy (ECA 2009).

In this connection there is a tendency to simplify the relationship between basic service delivery and development outcomes by suggesting that simply more public spending would result in broader access and higher quality of public services. But there is only little empirical evidence in support of this suspicion (ECA 2007a). Furthermore, the WDR 2004 reveals that this assumption can be neglected in the light of the empirical fact that there is only a weak correlation between public spending and development outcomes. For example, Ethiopia and Malawi spend more or less the same amount per person on primary education, in spite of having very different outcomes.

There are, in this regard, many different opportunities on how to provide basic services; most of them are summarized in table 3.1. But who should provide the public with basic services? This question has been the centre of attention of many scholars and development practitioners as well as policy-makers for the last decades. In this connection, the arguments for state provision range from a normative perspective, stating that basic services are merit goods with an intrinsic value and should be supplied to everybody even if there is no market demand. While basic services have such an inherent worth, the state cannot depend on other providers and must therefore ensure their effective provision. Furthermore, basic services are replete with externalities – like when infected persons spreading their diseases or when a farmer benefits from his neighbor's ability to read, the private sector would left to their device. The market failure argument for state provision argues that the market fails in providing most basic services for a price that meets supply and demand of the broad population in general. Furthermore, according to the Universal

Declaration of Human Rights, basic services such as health or education are considered fundamental human rights and should therefore be provided by the state, no matter how difficult the problems of delivery are (UNITAR n.d.; World Bank 2003).

TABLE 3.1 Variety of institutional arrangements of providing basic services by ownership and type of provider/ organization

Ownership	Type of Provider/ Organization	Example: Water services
Public Sector	Ministry/ department/ agency/ bureau	Ministry of public works
	Public sector autonomous corporation	State water corporations
Non-profit Sector	Community owned	Rural water associations
	Non-profit organization	-
Private Sector	Small for-profit firm	Informal water vendors
	Large for-profit firm	Private utilities
Hybrid form	For-profit firm/ ministry/ department/ agency/ bureau/ public sector autonomous	Private Public Partnerships

Source: Adapted from World Bank 2003: 50.

Beside the provision of basic services by the state there are many different options in providing basic services such as PPPs, contracting-out or privatization. In this regard, the provision of water services, for example, is pulled along the public-private continuum (Mehta 2003), showing the broad varieties in providing basic services. Those arrangements, who are applying market principles to a sphere that has been predominantly in the hands of the state, derive mainly from the adoption of the so called New Public Management (NPM) doctrine. NPM is meant to improve the efficiency and responsiveness of government action (Bovaird and Löffler 2003). In doing so, it is often argued that market solutions for basic service delivery provide those services in a more effective and efficient manner and hence reach a broader range of customers than public service provision would do.

Some scholars have claimed that the implementation of NPM in the developed world led to a paradigm change in public administration (Borins 1994; Hughes 1998, Osborne and Gaebler 1992), which was backed by the emergence of right-wing politicians in the western countries, such as Margaret Thatcher or Ronal Reagan (Hughes 1998). In their opinion the state was, due to its size, scope and methods, a main part of the economic and fiscal crisis of the welfare-state. Economic theories such as public choice and new institutional economics provided them with explanations for poorly performing public services and offered alternatives (Olowu 2000). However, to what extent the implementation of NPM led to more efficiency and greater responsiveness is a controversial issue.

BOX 2. New Public Management

NPM is neither a clearly defined concept nor universal in its implementation, hence it differs in interpretations and realizations across countries. Generally, it is used to describe a management culture that emphasizes the centrality of the citizen - now defined as customer, accountability for results, as well as promoting institutional arrangements that promote decentralized control through different options of service delivery and apply market principles. As a set of core elements, NPM includes: Emphasis on performance management, more flexible and devolved financial management, more devolved personnel management with increasing use of performance-related pay and personalized contracts, more responsiveness to users and other customers in public services, greater decentralization of authority and responsibility from central to lower levels of government, greater recourse to the use of market-type mechanism such as internal markets, user charges, vouchers, franchising, contracting out and privatization.

Source: Schröter and Wollmann 2005; Hood 1991; Bouvaird and Löffler 2003

States in the developed world have only adopted subsets of NPM elements and implemented them in different degrees (Hallingan 2001). In this regard the UK serves as an example of a broad implementation of the NPM approach, while France still maintains a large part of its public administration. However, most countries in the OECD-world have mixed NPM reforms with the classical Weberian bureaucracy[15], resulting in most cases in

[15] Bureaucratic administration in a Weberian sense fundamentally means the exercise of control on the basis of knowledge. For Weber, power is principally exemplified within organizations by the process of control. In this regard he distinguishes between power and authority by defining the latter as any relationship where one person could impose his will, regardless of any resistance from the other, whereas authority exists when there is a belief in the legitimacy of the power - which he distinguishes between, charismatic, traditional and rational legal authority. According to that nature of power Weber classifies organizations. The hierarchical

the convergence of both models – the so called Neoweberian state (Politt and Bouckaert 2004).

Experiences show that the adoption of the NPM approach – in the developed as well as in the developing world - is not a panacea and has resulted in mixed outcomes. Manning (2000) found out that only one third of NPM inspired reforms in developing countries achieved satisfactory results. A study undertaken by ECA (2003) furthermore reveals that public sector management efforts in Africa, who were inspired by the NPM approach, produced mixed outcomes.

Whether basic services in developing countries should be provided by the state or the private sector has also been examined by a recent study of the UNDP International Policy Centre for Inclusive Growth (Bayliss and Kessler 2006). It concludes that service delivery reforms focusing on market-principles often do not make services more accountable and efficient, nor do they address issues of equality. In their notion privatization creates an incentive framework that undermines the accountability and capacity of the state. However, the WDR 2004 has shown that privatizing public services has led at least in some cases (e.g. Cartagena, Colombia) to improved services and access for the poor, which shows the ambiguity of results of PSP within the provision of basic services. In this regard another study worth mentioning is Clarke et al. (2004). The authors were examining whether the privatization of WSS in Latin America has improved its coverage. However, they were not able to show whether the private sector was responsible for an increasing coverage, since coverage also increased in areas were the state was responsible for providing these services.

Nevertheless, in many developing countries the state is no longer seen as the only basic service provider. In recent years numbers of non-state providers (e.g. small scale water vendors or non-profit providers such as Non-profit Organizations [NPO]) increased.

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control on the basis of rational legal authority (based on a code or a set of rules) is known as bureaucracy, which is for Weber the most efficient form of organization (Weber 1988).

Beside the adoption of NPM oriented reforms, this is often due to the rise of small and often informal service providers who are filling the gap of weak state capacity. Furthermore, also the privatization of public services, for example within the water sector, has contributed to the increased emergence of such providers (GSDRC 2006). Moreover, it is often difficult to regulate such informal small scale providers. However, they are of high importance as almost all new employment (93%) in African LDCs is in the informal sector (UNCTAD 2006a).

In many African LDCs, NPOs have been significantly active in the provision of basic services. In this regard, it is often argued that they can provide the information necessary for understanding the needs and expectations of the poor with regard to basic service delivery, as they offer important skills and resources the state as well as the private sector may lack (UN-OHRLLS and UNDP 2006). In academia, the provision of basic services by NPOs is a widely discussed issue with a substantial body of literature. However, the conclusions of most studies dealing with non-profit basic service delivery (Clayton et al. 2000, Fowler 1997, Riddel 1997, Oakley 1999), regarding such criteria as equality, quality, efficiency and cost effectiveness, are, not surprisingly, mixed. They, for instance, provide only little evidence suggesting that basic service provision by NPOs is more likely to reach the poor than, for example, state provision.

Putting those experiences together, no studies of developing countries have so far convincingly shown who should provide the public with basic services that work. Therefore, it seems that the trigger in providing the public with better and broader basic services might not be the institutional arrangement at first hand. Furthermore, no matter who provides basic services, there are certain problems arising in the provision of basic services such as unequal service provision, dysfunctionality of services, low technical quality, non-responsiveness to local needs or no service controlling and follow-up (World Bank 2003). In this regard, recent analyses such as the WDR 2004 differentiate between access to and quality of the provided services. While basic services are often failing poor and socially disadvantaged people, the accessibility of basic services is one of the main

problems in providing equal basic services that are likely to reduce vulnerabilities and encourage social development and growth.

3.2 Access to basic services

Access to basic services, as defined in this study, means i) the services are produced, available and accessible, and ii) the price paid by the users has to take into account their financial resources. This results in the differentiation between two types of access: real and effective access. In this regard, people may have real access but, due to expensive services, do not have effective access to basic services. Especially in Africa this seems to be an important point, as income inequality appears to be significant and is becoming a growing issue of concern (UNDESA 2006). In addition, it needs to be mentioned that access to basic services is not the same as the utilization of such services, since access has also a socio-cultural dimension, which derives from an equality and non-discriminative perspective (Marcus et al. 2004). Delivery assistance for example is often not accessible – especially in rural areas (ECA 2008a) - not only because of the lack of adequate health personnel or their distance to the next health station, but also because certain cultural perceptions raise the question of how women should give birth (ECA forthcoming). Assuming the accessibility to delivery assistance in traditional settings would be fully given, it would probably not be utilized to its full extent. Another type of barrier in accessing basic services are legal barriers. In this regard, exclusion starts when parents fail to register their new born child and obtain a birth certificate (ESCAP 2007).

Moreover, when looking at the accessibility aspect of basic services, there are two broad types of implications which influence the access to basic services: supply and demand factors. The first focuses more on the policies and institutional environment of service delivery while the latter reflects the views, opinions and/ or perceptions of the citizens. However, the supply factors are often accompanied by the demand factors and are of mutual nature, since a higher supply could promote a higher demand and the other way around. The DHS analysis as used in this study covers the supply side considerably while demand factors are tried to be taken into account in the data interpretation.

As stated above, in order to meet IADGs and foster economic growth and social development in general, it needs to be ensured that basic services reach the poor and socially disadvantaged. However, especially in African LDCs this does often not happen due to a wide range of barriers (ECA 2008a; World Bank 2004).

3.3 Equality in access to basic services

According to Gao (2001), inequality is a term that in general describes differences that are unjust, unnecessary and avoidable, as every person should have access to basic services that are necessary to protect, promote and maintain every person's health (Soares at al. 2002).

While providing basic services in general and WSS in particular, there are different aspects of inequalities within the access to WSS that might occur. By using the analytical separation between real and effective access, table 3.2 provides an overview of the nature of different kinds of inequalities in access to WSS, their typical measure as well as if they are captured by the used DHS dataset. As it can be seen from the table below, the data analysis used in this study covers only real access.

In African countries, there are different causes for inequalities in access to basic services such as the economic status, education, place of residence (rural/ urban), discrimination based on gender, race, disability and ethnicity, age, health status, etc. In this regard, groups who are routinely excluded are rural communities and the poor (World Bank 2003). In this context, poor people are less likely to start school and more likely to drop out. Furthermore, there are disparities in accessing health services between women and men, and, moreover, only half the African rural population has access to improved WSS (World Bank 2003) – stating just some of the main inequalities within the provision of basic services. However, due to data limitations and in order to get a clear and comparable picture of inequalities in access to basic services, this study will focus on such barriers as economic status, place of residence and sex of the head of the household.

TABLE 3.2 Aspects of inequality in access to water and sanitation services

Nature of Inequality	Typical measure	Real or effective access	Captured by DHS
Water supply			
Volume of Water	Liters per person per day	Real / Effective	No
Reachability	Time spent a day collecting water	Real	No
	Distance from nearest source of water	Real	Yes
	Number of persons per standpipe	Real	No
Reliability	Hours a day or week water is available	Real	No
Costs	Price per cubic metre or per litre	Effective	No
	Price per connection	Effective	No
Improved facilities	Type of water source	Real	Yes
Sanitation			
Infrastructure to remove toilet wastes (sewer)	Sewer connection	Real	Yes
Time taken to access sanitation facilities	Distance to toilet	Real	No
	Time spent queuing	Real	No
Costs	Price per connection	Effective	No
Improved facilities	Type of sanitation facility	Real	Yes

Source: Adapted from UN-Habitat 2003: 63.

Economic status

Poor people are vulnerable to exclusion from accessing basic services. Moreover, they suffer from different levels of deprivation in education, improved WSS and adequate health care (ECA forthcoming). Despite the increase of economic growth in some African LDCs until the global economic and financial crisis, data on poverty at this time indicated that especially in those countries poverty levels continued to be high (ECA 2005; UNCTAD 2008, 2009). This is mainly because the benefits of growth have not been equitably distributed among the populations (ECA 2006).

Place of residence

Africa is the fastest urbanizing region in the world, as its urban population growth rate averages almost 5% per year over the last two decades, accounting for almost a doubling of the urban population in fifteen years (Kessides 2006). For African LDCs in particular, this

is the decade of a historical population transition as for the first time in their history their urban population grows faster than their rural does. Those countries who do not witness this transition yet are projected to do so in the next decade (Herrmann and Khan 2008). Those high urban growth rates are due to rural-urban migration and high population growth rates. This trend results in a higher proportion of socially excluded and poor in large cities. Therefore, many poor people living in slums or so called periurban areas lack access to basic services (ECA forthcoming).

In this context it should be noted that still around three fourth of the population within African LDCs are living in rural areas. Furthermore, in many African countries especially within the LDCs, the incidence of poverty in rural areas is higher than in urban areas. According to the ECA 2005 Economic Report on Africa, this is not only because a large share of people living in rural areas are poor but also due to the distribution of economic activity between rural and urban areas. Moreover, as most recent studies show (see for example Okojie and Shimeles 2006 or World Bank 2003), there is a huge rural-urban gap in the provision of basic services. Furthermore, the rural-urban gap increases gender inequality in many cases (UNDP 2005).

Gender

Women still experiencing unequal access to political, social and economic resources, which is due to society's lack of integration (ECA forthcoming). This results in unequal opportunities in accessing certain basic services such as education or health services. Despite gender inequality in education has been decreased by some LDCs, those LDCs that made low progress or still stagnating are - except Afghanistan - African LDCs (UNCTAD 2008). Furthermore, the prevalence of poverty in Africa is not gender neutral, since it is biased against women or female-headed households (ECA 2005, forthcoming). Especially within LDCs, accounting for a large share of African countries (33 out of 53), the feminization of poverty is distressing (UN-OHRLLS 2006).

BOX 3. The Feminization of Poverty

The `Feminization of Poverty´ is an idea that dates back to the 1970s, postulating a change in poverty levels that is biased against women or female-headed households. However, this should not be confused with the prevalence of higher levels of poverty among women or female-headed households, as feminization is a process whereas a higher level of poverty is a state. So, in general the concept of Feminization of Poverty combines two phenomena: poverty and gender inequality. A look on the evidence of this concept marks clearly its relevance: 70 percent of the worlds poor are women.

In African countries in particular, the gender gap exists in all spheres, but especially poverty in those countries has a female face. The main contributing factors to this unacceptable phenomenon are the growth of female-headed households, intra-households inequalities and bias against women and girls, as well as neoliberal economic policies, including structural adjustments.

Source: Medeiros and Costa 2008; Moghadam 2005

3.4 Coherent, inclusive and effective policy frameworks

In order to overcome such barriers as mentioned in the previous section and to provide equal access to basic services, the literature discusses various alleged solutions. In doing so, social accountability, a concept which mainly derives from principal-agent analysis and which dominates the recent mainstream within this debate, needs to be mentioned before addressing the core topic of this sub-section.

Social accountability, which gained momentum since the World Bank's WDR 2004, is often seen as an appropriate means in order to increase the quality and quantity of public services. In the Bank's notion, improving the, as they call it, `short route of accountability´ supports the "*[…] emergence of capabale, motivated front line providers with clear objectives and adequate resources.*" (World Bank 2003: 46). In exercising this concept of citizens´ voice-raising and services providers´ responsiveness to their needs, there have been first interesting achievements so far, as for example within Ethiopia (Zema Setoch Lefith et al. 2009; GTZ ESAP, September 2009).

As social accountability tools are appropriate to discover blind spots in service delivery and make service providers accountable to citizens, they provide a good orientation on where to improve basic services and to track their performance. However, they do not provide any actions to be taken to overcome observed shortcomings. For example, if there is a lack of sufficient health workers in rural areas, an improved accountability does not

necessarily overcome the problem of limited human resources, as this problem is more of a structural nature. Furthermore, modes of accountability differ according to the institutional arrangement of service providers. For example, a non-profit service provider might be accountable to donors, however, accountability to his beneficiaries might be limited.

Another important means of improving inequality in access to basic services might be, as it has been identified within the previous chapter, on the policy level. In this regard, experiences have supported the supposition that coherent and inclusively designed policy frameworks, if implemented and monitored properly, are very likely to support the improvement of access to basic services and overcome such service barriers, as presented in the previous sub-chapter.

In doing so, this study differentiates between vertical and horizontal coherence. Horizontal coherence stands for the interactions of all national policies being in line with each other, while the vertical coherence stands for the embededdness of national policies within national development plans or PRSPs. Furthermore, national policies have to be clear and coherent in themselves and need to be incorporated in a coherent expenditure programme. In terms of basic service delivery, furthermore, the intended role of the government within the sector is of importance.

BOX 4. Policy Coherence, Inclusiveness and Effectiveness: A Definition

Policy coherence primarily means at first hand the absence of incoherence, which occurs when other polices deliberately or accidentally impair the effects of a certain policy or run counter to its intentions. A second, more ambitious definition sees policy coherence as the interaction of all policies that are relevant in the given context with a view to the achievement of overriding development objectives.

Inclusiveness in terms of policy design means that a certain policy has been based on a structural process of consultation and involvement of all relevant stakeholders and does reflects their needs and demands.

Effectiveness, in this regard, means that there is an appropriate monitoring and evaluation system for activities evolving out of the policy in place. Furthermore, the policy has to be implemented to an acceptable level as well as resource allocation has to be continuous and based on financial planning.

Source: EC 2003; Ashoff 2005

In order to assess the coherence, inclusiveness and effectiveness of policy frameworks for basic services, an analytical framework (annex 1) has been developed. It was adapted from the EC *Guidelines for Support to Sector Programmes* (2003). In addition, specific issues such as policy monitoring and evaluation as well as implementation and resource allocation were added to assess its effectiveness.

3.5 Conclusions

This chapter has shown that no single institutional arrangement can provide a blue-print solution for basic service delivery that benefits all. After providing an analytical framework for the access to basic services and identifying natures of inequality as well as socio-economic groups that seem to be excluded from access to basic services, the section has shown how policy frameworks – if designed in a coherent and inclusive manner and monitored and implemented effectively - could foster the equality in access to basic services. In doing so, this chapter provides the theoretical base for the upcoming chapters where the degree of access to basic services will be assessed in accordance to the identified barriers wealth, place of residence and gender.

CHAPTER 4

Evidence on inequalities in access to basic services in African LDCs

4. Introduction

The equality in access to basic services in African LDCs is poor and ranks among the lowest in the world; furthermore, those countries are unlikely to reach most IADGs, such as the MDGs or the BPoA. For example, access to health services in most African countries is provided in an unequal manner (ECA 2008a) with very different outcomes. In this regard, the under-five-mortality rate per 1,000 live births (U5MR) (table 4.1) for certain socio-economic groups varies dramatically. In addition, children under 5 living in rural areas or being born into households belonging to the poorest wealth quintile are more likely to die than children living in urban areas or belonging to richer families.

TABLE 4.1 Inequality in health, selected African LDCs

Country	Year	Under-five mortality rate per 1000 live births					
		Place of residence			Wealth quintile		
		Rural	Urban	Rural/ urban ratio	Lowest	Highest	Lowest/ highest ratio
Benin	2006	145	116	1.3	151	83	1.8
Burkina Faso	2003	202	136	1.5	206	144	1.4
Chad	2004	208	179	1.2	176	187	0.9
Ethiopia	2005	135	98	1.4	130	92	1.4
Madagascar	2003-04	120	73	1.6	142	49	2.9
Malawi	2004	164	116	1.4	183	111	1.6
Mali	2006	234	158	1.5	233	124	1.9
Niger	2006	231	139	1.7	206	157	1.3
Rwanda	2005	192	122	1.6	211	122	1.7
Uganda	2006	147	115	1.3	172	108	1.6
Zambia	2001-02	182	140	1.3	192	92	2.1

Source: WHO 2009

Similar evidence can be provided by looking into the education sector, as education services are biased against the poor, the rural population or women (World Bank 2003). Table 4.2 provides evidence of clear economic inequalities for all countries in the sample and gender inequalities for most study countries, when assessed by their primary completition rates. However, it should also be taken into account that the demand for education services throughout different wealth quintiles might vary.

TABLE 4.2 Inequality in primary education, selected African LDCs

Country	Year	Primary completition rate % of relevant age group					
		Wealth quintile			Sex		
		Lowest	Highest	Highest/ lowest ratio	Male	Female	Male/ female ratio
Benin	2001	7	45	6.4	23	15	1.5
Burkina Faso	2003	8	52	6.5	24	20	1.2
Chad	2004	1	36	36	15	8	1.9
Ethiopia	2000	4	44	11	15	12	1.3
Madagascar	1997	1	47	47	13	16	0.8
Malawi	2002	10	52	5.2	32	14	2.3
Mali	2001	3	37	12.3	16	11	1.5
Niger	1998	8	46	5.8	22	13	1.7
Rwanda	2000	7	28	4	14	14	1
Uganda	2000-01	7	43	6.1	19	21	0.9
Zambia	2001-02	17	79	4.6	38	43	0.9

Source: World Bank 2008b; own calculations

In this connection there are generally two ways of measuring inequalities: looking at the absolute or the relative gap between comparison groups. The absolute gap measures the difference between comparison groups – the higher the value the more inequitable. The relative gap is measured by the ratio between the values in the groups compared – the

closer to unity (1) the more equitable (ECA 2008b). Both methods confirm inequalities within the tables above. In this regard, this study uses the latter method. In doing so, inequality within the U5MR by place of residence is highest in Niger – one of the poorest countries within the sample[16] - and lowest in Chad. Stratified by wealth quintiles, Chad ranks again among the good performers, as it is one of the richest countries within the sample[17], while Madagascar – which has one of the highest Gini index scores within the sample (0.48) - shows relatively high income inequalities within the country and represents the worst values. Inequality in primary school completition by wealth status is, again, the highest in Madagascar and the lowest in Rwanda.

Those inequalities in health and education can be reduced by governments strengthening the service provision in the mentioned sectors by adequate policy design and implementation. The same accounts for WSS, which are strongly interrelated with the mentioned sectors. However, stratified data for access to WSS for African LDCs is only of limited availability. Therefore, the following DHS analysis tries to close this gap.

For a better understanding of underlying causes of inequality in access to basic services in general and WSS in particular, the DHS data of 11 African LDCs have been analyzed. The countries within the sample differ from each other in terms of socio-economic dimensions and regional distribution within the continent. The sample includes countries with large populations such as Ethiopia – which makes the task of providing equal basic services more difficult - while countries like Benin or Rwanda have relatively small populations. Also countries with a relatively high GDP per capita like Zambia were included, while countries such as Ethiopia pertain one the lowest GDP in the sample. Furthermore, the income distribution as measured by the Gini coefficient varies across the sample countries.

[16] In terms of GDP per capita at current prices, 2007 (see table 3.3).
[17] Ibid.

TABLE 4.3 Basic country indicators

Country	Population (millions), 2007 a)	GDP per capita at current prices (USD), 2007 b)	Income distribution (Gini index) b)	
			Year	
Benin	9	618	2005	0.37
Burkina Faso	14.8	483	2003	0.4
Chad	10.8	692	NA	NA
Ethiopia	83.1	201	1999 - 2000	0.3
Madagascar	19.7	377	2001	0.48
Malawi	13.9	257	2004 - 05	0.39
Mali	12.3	554	2001	0.4
Niger	14.2	289	1995	0.51
Rwanda	9.7	354	2000	0.47
Uganda	30.9	403	2002	0.46
Zambia	11.9	974	2004	0.51

Source: a) UNICEF 2008; b) UNSD September, 2008

In the following part of this study inequalities in access to basic services as measured for WSS within the sample countries will be assessed.

4.1 Inequalities in access to safe drinking water services

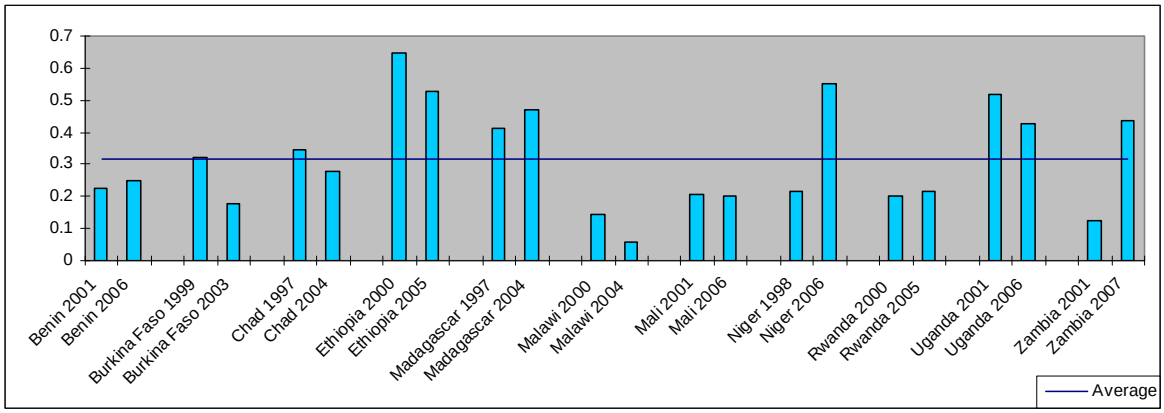
This part addresses particular inequalities in access to safe drinking water services. In doing so, the results for the observed 11 African LDCs will be stratified according to economic status, place of residence and sex of the head of the household.

4.1.1 Inequalities by economic status

Inequalities in access to safe drinking water services are observed to a different degree across all countries in the sample. This can be seen in figure 4.1, which shows the concentration indices for access to water services over time. In this regard it can be observed that the magnitude of the development of concentration index scores over time differs. On the one hand, there are countries like Ethiopia or Uganda that made good progress in reducing economic inequalities but still rank on an under average level. Beside this, also countries such as Burkina Faso, Chad or Malawi made good progress; however, these countries are providing safe drinking water services in a more equal manner. Countries like Mali and Rwanda made only little changes, but still maintain a good level.

On the other hand, there has been some decline, namely in Benin and Madagascar and some dramatically worsening in Niger and Zambia.

FIGURE 4.1 Concentration indices for access to safe drinking water services over time



Source: Own calculations using DHS data

Beside their developments, countries like Ethiopia, Madagascar, Niger, Uganda and Zambia have shown a dramatically high degree of inequality, while countries like Burkina Faso, Malawi, Mali or Rwanda have achieved a higher level of equality. For Mali, the concentration curves over time also show (Figure 4.2) that improvements were made in order to close the equality gap, while Zambia, in contrast, has increased its gap.

FIGURE 4.2 Concentration curves over time for access to safe drinking water services

FIGURE 4.2a Concentration curves for Mali

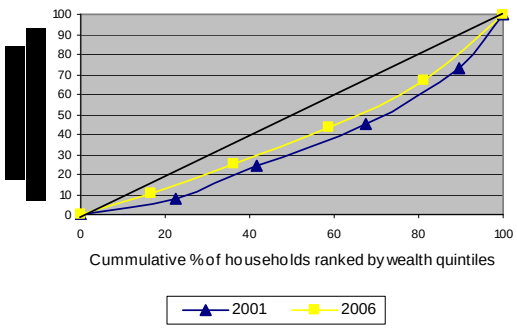
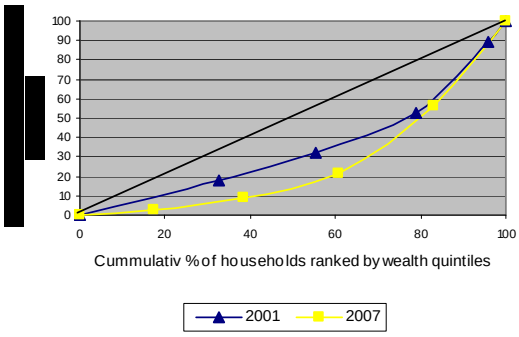


FIGURE 4.2b Concentration curves for Zambia



Source: Own calculations using DHS data

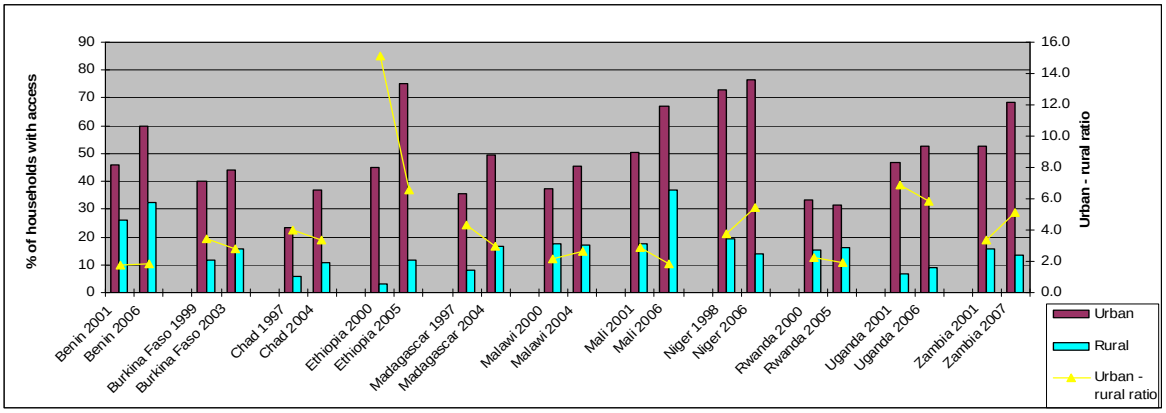
Within all sample countries - except Malawi - the presence of economic inequalities in access to water services is obvious and implies the need for policy attention and action to be taken.

4.1.2 Inequalities by place of residence

Beside a household's economic status, its place of residence is of importance when it comes to the measurement of inequalities in access to water services. This is not only due to the fact that the majority of the poor are living in rural areas, but also due to the higher amount of transaction costs of seeking adequate services as well as access to service information (see for example ECA 2008a on health services).

In this regard, figure 4.3 presents inequalities in access to safe drinking water services over time, divided by rural and urban regions. The left x axis shows the percentage of households with access to water services stratified by place of residence (rural/ urban), while the right x axis displays the urban-rural ratio.

FIGURE 4.3 Access to safe drinking water services by place of residence



Source: Own calculation using DHS data

In this regard, within more than half of the sample countries, reductions of the rural-urban gap can be witnessed, namely in Burkina Faso, Chad, Ethiopia, Madagascar, Mali und Uganda. The country that had the greatest relative reduction is Ethiopia; however, it still maintains the highest urban-rural ratio. Two countries made no or only little progress but

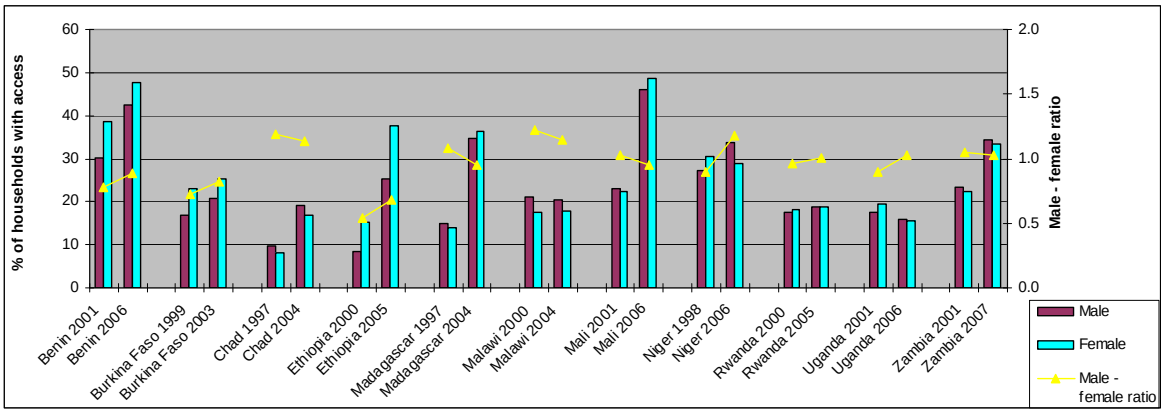
still illustrate the lowest ratios and therefore only a relatively low degree of inequality: Benin and Rwanda. The worst performers with deterioration over time and high degrees of relative inequalities are Niger and Zambia.

Overall, it is obvious that, even though there had been some relative improvements, there is a huge rural-urban gap at all countries at all times. In this regard, the data shows that households in urban areas have on average a 3.7 times higher possibility of access to safe drinking water services than a rural household. These results are alarming and call for policy changes that have the potential to overcome those shortcomings.

4.1.3 Inequalities by sex of the head of the household

Another factor worth examining is the sex of the head of the household. This is illustrated in figure 4.4, which shows the relative access to safe drinking water services by sex (left x axis) and the male-female ratio (right x axis) in access to water services. A ratio of 1 describes an equal access for both sexes, while a value closer 0 stands for more female-headed households with access – a value closer to 2 implies an advantage towards male-headed households.

FIGURE 4.4 Access to safe drinking water services by sex of the head of the household



Source: Own calculations using DHS data

The results are showing variations: there are five countries, Benin, Burkina Faso, Ethiopia, Madagascar and Niger, where female-headed households have a higher access to water

services and five countries, Chad, Malawi, Niger, Uganda and Zambia, where male-headed households have a higher access. Only one country, Rwanda, has achieved an equal access with only little changes over time. However, many ratios are relatively close to 1 with only little variations as regarded sexes, so they could be seen as quasi equal. Those countries that show a positive trend are Benin, Burkina Faso, Chad, Ethiopia, Malawi, Rwanda, Uganda and Zambia. All of those countries made improvements over time in order to provide equal access to water services concerning sexes. The most interesting case in this regard is Ethiopia where female-headed households are more likely (1.5 times) to have access to safe drinking water services.

Overall, it can be stated that in most cases safe drinking water services are provided relatively equally across households headed by different sexes, as the average male-female ratio amounts to 0.98. Although there had been positive developments over time in most cases, nevertheless they were only marginal.

4.1.4 Summary of inequalities in access to safe drinking water services

The evidence has clearly shown that access to safe drinking water services differs according to economic status and place of residence. For all study countries people from the poorest quintiles are less likely to have access to water services than those that are better-off. However, there are some variations between the countries. The findings also show striking evidence of rural-urban disparities in accessing drinking water services in all countries. In this regard, the existences of gender inequalities are rare. Apart from a small number of countries, where access to water services is more likely for female-headed households, there are only two countries where male-headed households were favoured.

Over two DHS rounds, results reveal that some countries made substantial progress in closing the equality gap. Countries that witnessed some strong improvements due to wealth differences are Burkina Faso, Ethiopia and Uganda. Countries that made substantial progress in addressing the rural-urban gap are Ethiopia, Madagascar and Uganda.

However, the evidence clearly marks that access to water services is poor in all countries out of the sample.

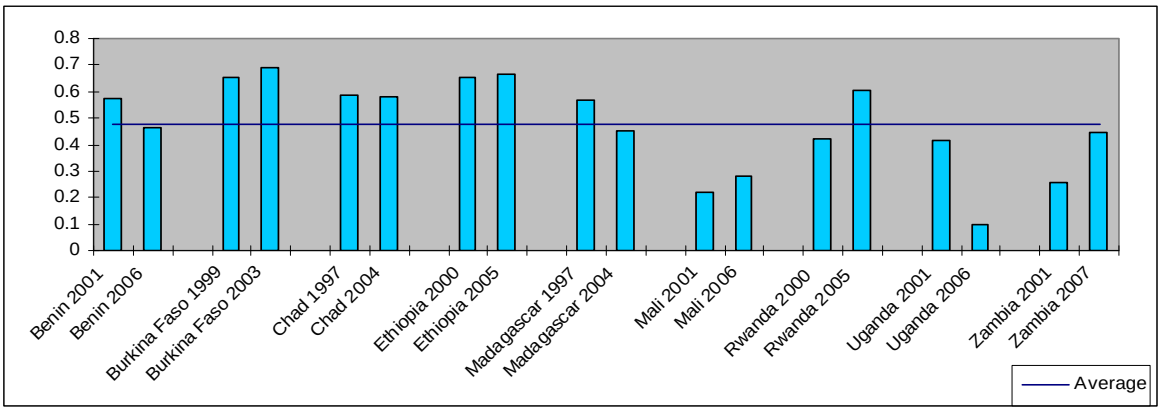
4.2 Inequalities in access to improved sanitation services

This part addresses inequalities in access to improved sanitation services over time. In doing so, the data will be stratified in accordance to socioeconomic-dimensions as identified in the previous chapter, namely wealth, place of residence and sex of the head of the household.

4.2.1 Inequalities by economic status

This sub-section examines economic inequalities in access to improved sanitation services. In doing so, it is obvious that the overall performance, measured by the concentration index, is quite poor with an average concentration index score of 0.48. As figure 4.5 shows, there are some variations over time that can be identified. There are countries like Benin and Madagascar that made some good improvements over time. In addition, Uganda has shown great progress in reducing its equality-gap. However, within countries such as Burkina Faso, Mali, Rwanda and Zambia some worsening can be witnessed. Ethiopia and Chad – both poor performers - did not show changes over time.

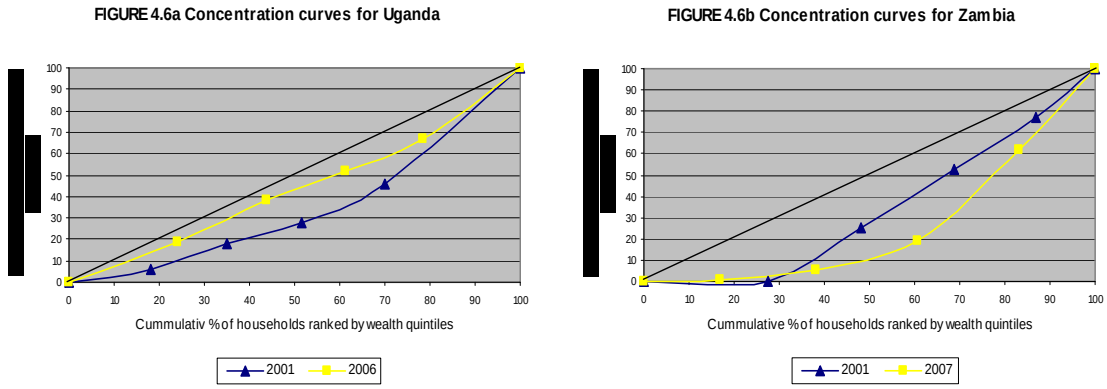
FIGURE 4.5 Concentration indices for access to improved sanitation services over time



Source: Own calculations using DHS data

The four countries that provide access to water services on an above average level are Uganda, Mali, Zambia and Madagascar. In this regard, Uganda serves as an example for reducing its inequalities in access to sanitation services to an acceptable level, while Zambia had a relatively good concentration index score in 2001, but experienced a strong deterioration until 2007. For those two cases the concentration curves over time (figure 4.6) clearly exemplify opposite developments.

FIGURE 4.6 Concentration curves over time for access to improved sanitation services



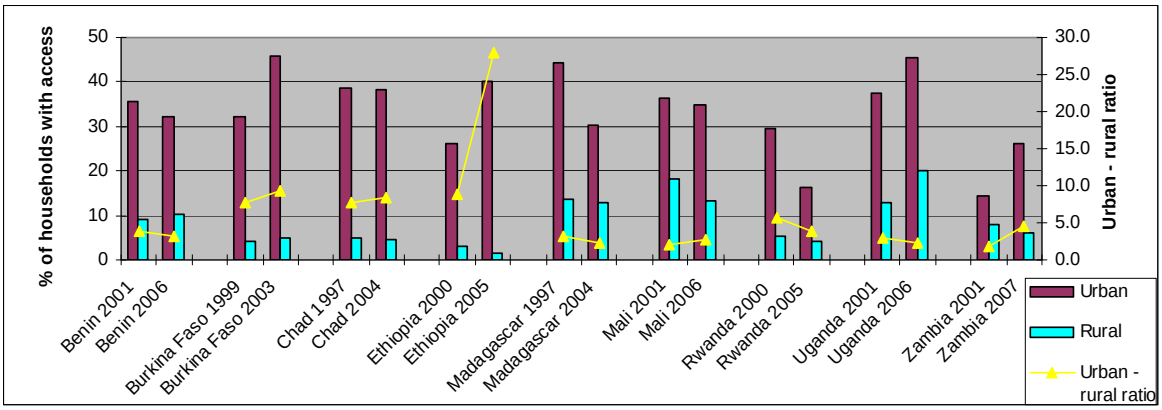
Source: Own calculations using DHS data

Overall, in all countries, economic inequalities in access to improved sanitation services can be witnessed. Furthermore, most concentration index scores rank on a dramatically high level, which marks the seriousness and importance of this issue.

4.2.2 Inequalities by place of residence

Also for sanitation services, the place of residence – next to the economic status - is a major concern. In this regard, figure 4.7 displays inequalities in access to sanitation services over time. It does so by separating the access to sanitation services into rural and urban (left x axis) as well as by constructing an urban-rural ratio (right x axis).

FIGURE 4.7 Access to improved sanitation services by place of residence



Source: Own calculations using DHS data

The results show variations, as there are countries that made some progress over time such as Benin, Madagascar, Rwanda or Uganda. At the same time, in some countries like Burkina Faso, Chad, Ethiopia, Mali or Zambia a regress can be witnessed. In this regard, huge inequalities are present in all countries at all times, but most dramatically in Ethiopia.

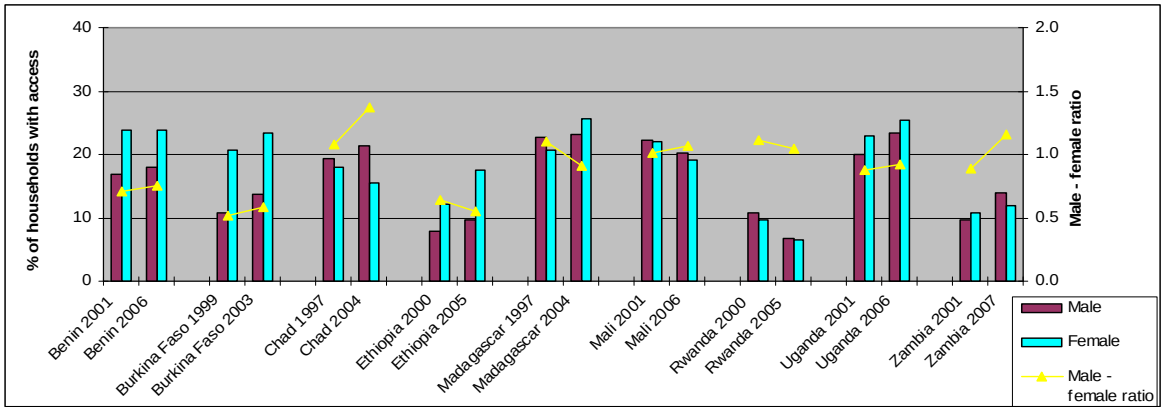
Overall, the status of inequality in access to sanitation services caused by the place of residence is alarming. In this juncture, on average a household in an urban area is around 7 times more likely to have access to improved sanitation services than a household situated in a rural area. These circumstances are unacceptable and call for appropriate policy actions to be taken by the respective countries.

4.2.3 Inequalities by sex of the head of the household

As access to safe drinking water services in general is not clearly biased against any sex of the head of the household, in this sub-section it will be analysed whether the same accounts for access to sanitation services. In doing so, figure 4.8 presents some evidence on access to sanitation services by the sex of the head of the household. In this regard, the left x axis displays the access divided by sex while the right x axis shows the male-female ratio (a ratio score of 1 implies an equal access).

The results show variations across the sample countries, as four countries made some progress in providing sanitation services equally regarding both sexes, namely Benin, Burkina Faso, Rwanda and Uganda, however countries such as Chad, Ethiopia and Mali witnessed some decrease over time. In this regard, there are five countries (Benin, Burkina Faso, Ethiopia, Madagascar, Uganda and Zambia), where access to sanitation services for female-headed households is more likely, while the remaining countries favour male-headed households. Around half the sample countries have a relatively equal access to sanitation services, namely, Madagascar, Mali, Rwanda, Uganda and Zambia. Moreover, there are outlying cases worth mentioning: Chad, for example, experienced a dramatic decrease over time, which resulted in the worst male-female ratio – in terms of discrimination against female-headed households. Benin, Burkina Faso and Ethiopia made only little changes over time and still maintain the worst male-female ratio in terms of discrimination against male-headed households.

FIGURE 4.8 Access to improved sanitation services by sex of the head of the household



Source: Own calculations using DHS data

Overall, the results of the analysis illustrate that, beside the outlying cases as stated above, within the majority of the countries access to sanitation services is provided in a relatively equal manner. This can be shown very clearly by the average ratio for all sample countries, which is 0.93.

4.2.4 Summary of inequalities in access to improved sanitation services

The evidence has shown that access to improved sanitation services in general is weak. In addition, the results indicate that access to sanitation differs according to economic status and place of residence as well as to some extend according to the sex of the head of the household. All households from the sample, situated in poorer wealth quintiles, suffer from a lower chance of access to sanitation services when compared to those who are better-off. Nevertheless, there are variations across the countries. The findings indicate also huge rural-urban disparities as regards the access to sanitation services for all study countries. In terms of gender inequality, there are some cases where the sex of the head of the household matters: In three cases (Benin, Burkina Faso, Ethiopia) access is biased against male-headed and in one case (Chad) access is biased against female-headed households. The remaining study countries provide access to sanitation services in a relatively gender neutral manner.

The comparison over time provides evidence that few countries made significant improvements in closing the equality gap. In this regard, Uganda is the only country that made substantial progress in terms of wealth differences. Strong improvements in terms of the place of residence were witnessed in Madagascar and in Uganda. Overall, there is striking evidence that access to sanitation services in general is on a dramatically low level.

4.4 Summary

Compared to inequalities in health and education outcomes as well as to access to and utilization of health services (ECA 2008a), access to WSS in general ranges on a dramatically low level. In this regard the findings show presence of inequalities (in terms of wealth and place of residence) in access to WSS for all countries at all times. In doing so, access to improved sanitation services in general is provided much more unequally than access to safe drinking water services. However, different developments over time have been observed in this context. There had been countries such as Zambia, the richest country of the sample, which experienced a substantial worsening concerning the access to

both basic services in terms of wealth as well as place of residence. Beside this there had been countries that made improvements over time in terms of wealth and place of residence, like Uganda.

In terms of gender inequalities, there is only little empirical evidence in support of the suspicion that female-headed households are discriminated as regards the access to WSS. Moreover, there are some cases, such as Ethiopia for access to water or Burkina Faso for access to sanitation services, where the data shows a bias against male-headed households. In this regard, the results for access to WSS do not show the impact of the demand of consumers. For example, access to water services in Ethiopia is higher for female-headed households, but this might be due to the reason that women are the one who are in charge of fetching water and therefore they try to assure a sustainable and reliable access to water services. Hence gender inequalities will not be considered in the following policy-analysis.

Putting those results together, this is showing that there is an urgent need of adequate policies that can improve the overall access to water and sanitation and at the same time address observed inequalities. In this regard, the following chapter will portray two case studies (one relatively good and one relatively poor performer from the DHS analysis) on policy frameworks within the water and sanitation sector. In doing so, this aims to contribute to the development of policy recommendations to overcome shortcomings in the provision of WSS, as seen within this chapter.

CHAPTER 5

Assessing water and sanitation policy frameworks in African LDCs

5. Introduction

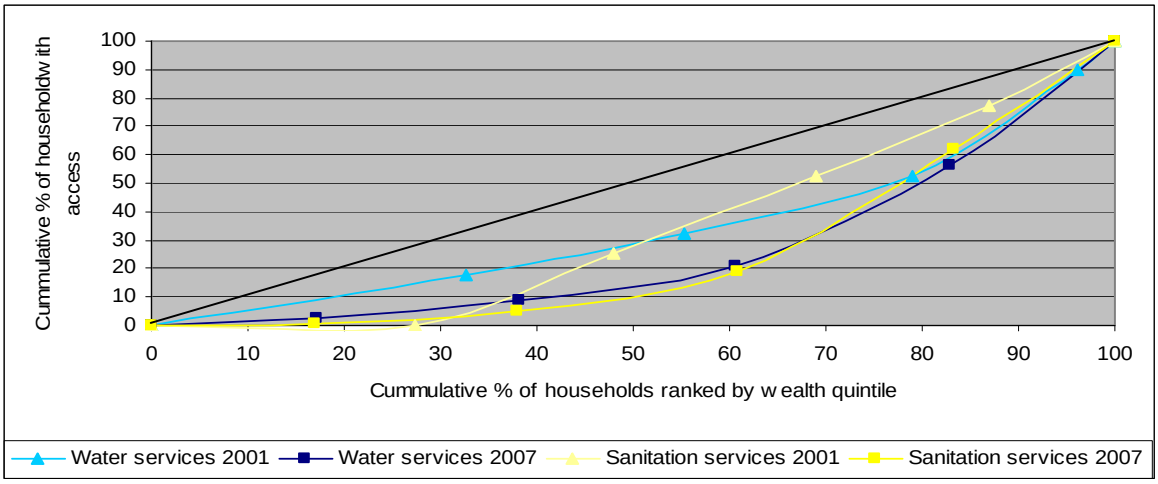
This chapter assesses policy frameworks within the water and sanitation sector of 2 identified cases out of the sample countries. It aims at identifying policy factors that seem to have an impact on equality in access to WSS. Based on the findings of this and the previous chapters, policy recommendations will be developed in order to overcome observed shortcomings. In doing so, the policy-analysis will be based on an analytical framework, which was adapted from the EC (2003). The cases were selected in accordance with their performance in the DHS analysis and meant to represent two different regions within the continent. In doing so, the following analysis will focus on such socio-economic dimensions as wealth and place of residence. Inequalities based on gender will not be considered, as observed variations were marginal and due to its strong demand-character, reliable results will be difficult to produce. The two countries that have been selected are Zambia and Uganda.

5.1 Case Studies

Zambia represents a country that experienced an increase of its equality gap in access to WSS over time (2001 – 2007). In this regard, in Zambia both of the concentration index scores for WSS worsened dramatically. In the area of safe drinking water services it worsened its score from 0.12 to 0.44 – within the sanitation sector it increased from 0.26 to 0.45 (see figure 4.1 for concentration curves). Looking at the development within the different wealth quintiles marks clearly that there has been a positive trend in Zambia: 11 percent more access to water services and 4 percent more access to sanitation services in general; however, these results derive mainly from improvements within the rich quintiles. Within the poor quintiles nearly no improvements could be recorded. In terms of place of residence similar developments were observed. While Zambia witnessed an improvement in access to water for urban areas by 16 percent, access for rural areas dropped by 2 per

cent. Similar developments were observed for access to sanitation services (urban: improvement of 12 per cent; rural: drop by 2 per cent). This shows that, though access to WSS in general is increasing in Zambia, the equality gap spreads dramatically.

FIGURE 5.1 Zambia's concentration curves over time for access to WSS

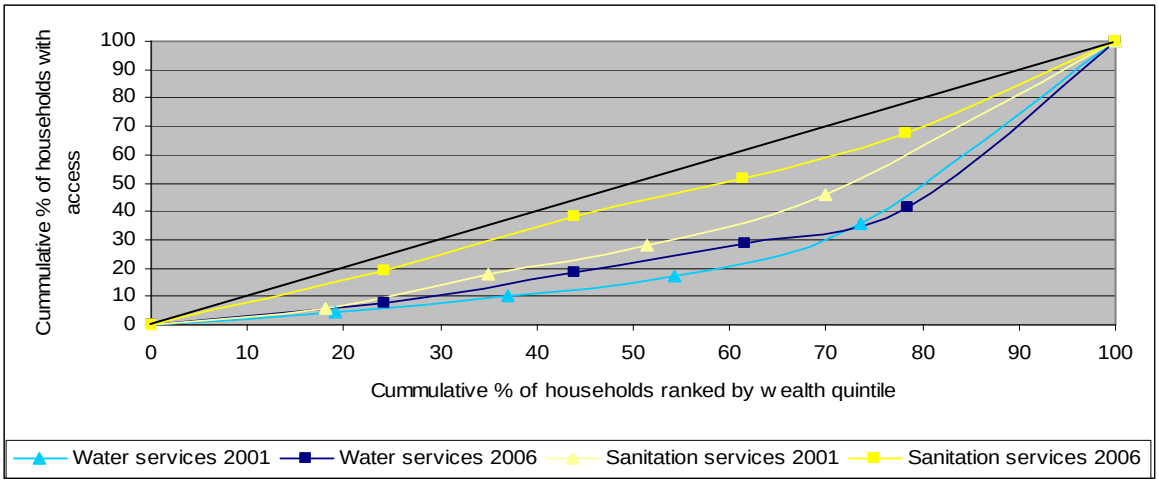


Source: Own calculations using DHS data

Uganda, on the other hand, witnessed some improvements over time (2001 – 2006) in terms of equality in access to WSS. In doing so, its concentration index score for access to sanitation services improved by 0.3; the score for access to water improved by 0.1. Still, there are economic inequalities in access to WSS, but it seems that the country is on the right track. In this regard, the analyses of developments within the different wealth quintiles were clearly pro-poor: poor quintiles increased by 21 per cent, as regards to sanitation services, while the rich increased by 2 percent – however, still households from the richest quintile are 1.9 times more likely to have access to improved sanitation facilities than households from the poorest quintile. The developments within the water sector revealed the same trends but of less magnitude for developments over time and stronger economic inequalities. In terms of place of residence there have been also good improvements. Although the rural-urban ratio for access to WSS improved slightly, the improvements in access to WSS in rural and urban areas were almost even (urban sanitation: 8 per cent, rural sanitation: 7 percent; urban water: 6 per cent, rural water: 2 per

cent). However, the improvements witnessed in Uganda, concentrated around the sanitation sector. Overall, in Uganda opposite developments compared to Zambia can be witnessed, as Uganda's access to WSS in general is, more or less, increasing while its equality gap is being reduced.

FIGURE 5.2 Uganda's concentration curves over time for access to WSS



Source: Own calculations using DHS data

The following policy-analysis will assess the country's policy frameworks in accordance with the developed analytical framework (see annex 1). By providing one good and one poor performer – in terms of equality in access to WSS over time - the analysis tries to identify policy-factors determining the equality in access to WSS.

5.1.1 Zambia

The following analysis will be separated according to the analytical framework. In doing so, first a brief country overview as well as an introduction into the sector's policy framework will be given. The latter parts of the analysis, namely coherence, inclusiveness and effectiveness will be structured in accordance with the identified questions in the analytical framework.

Country overview

Zambia is one of Southern Africa's landlocked LDCs. With a population of around 12 million in 2007 and 35 percent of its population living in urban areas (UNSD September, 2009), it has a size of around 750,000 km² (CIA, September 2009) and a GDP at current prices of 974 USD in 2007, which makes it the richest country out of the study sample but one of the poorest countries in the sub-region. Its relative high Gini coefficient (0.51 for 2004) makes Zambia – together with Niger - the country with the most unequal income distribution out of the study countries[18]. Zambia's economy is historically based on the copper mining industry. Due to a sharp decline in copper prices, its growth declined from 6.1 in 2007 to 5.5 per cent in 2008 (African Economic Outlook, October 2009).

In Zambia, poverty is increasing and health is deteriorating – malaria is widespread and the estimated adult HIV prevalence rate for 2007 is around 15 per cent (UNSD, September 2009). In this regard, life expectancy dropped from 49 years in 1990 to just 42 years in 2007 and also the U5MR increased from 163 in 1990 to 170 in 2007 (UNICEF 2007). Taking these figures into account, Zambia has been ranked 164 (out of 182 countries) within the HDI (UNDP 2008).

Unlike many other countries in the region, Zambia is adequately endowed with water resources as the country's rainfall averages between 1400mm in the north and 700mm in south of the country (CIA, September 2009). Beyond that, Zambia has many rivers and lakes. Taken as a sum total for the whole country, available water resources far exceed the consumptive use even in a drought year. However, there are significant regional variations and competition for available water resources is expected to increase with the economic development in the country (Republic of Zambia 2002). In this regard, estimations have shown that only 1.5 per cent of the annual renewable water resources are being used at

[18] Comparison between the Gini coefficients as displayed in table 3.3 might be questionable, as the figures are for different years as well as methods for calculating the Gini coefficient are varying. However, in this connection it serves rather as a rough orientation than a substantial analysis.

present (Sievers 2006). This exemplifies that the main problem in this regard is not availability but access to safe drinking water.

Policy Framework

In Zambia, policy formulation in general is performed by the executive through the cabinet office. The cabinet is currently compromised by 22 cabinet ministers, who are each in charge of a line ministry. In this regard, policy proposals are developed by their respective ministries. Prior to any submission of a policy proposal, the respective ministry circulates it to fellow cabinet ministers for comments. In this regard, a recent assessment (ECA 2007b) of the Zambian policy making process comes to the result that "*[…] the Zambian policy-making process is quite elaborate. The process, however, suffers from weaknesses associated with the implementation, monitoring and evaluation of approved policies*".

The responsibility for policy formulation and implementation for the water and sanitation sector lies at the Ministry of Local Government and Housing (MLGH). The national sector framework is based on the National Water Policy (NWP) of 1994. The NWP incorporates seven sector principles, namely: i) the separation of water resources management from water supply and sanitation, ii) the separation of regulatory and executive functions, iii) the devolution of authority to local authorities and private enterprises, iv) full cost recovery on the long run, v) human resource development leading to more effective institutions, vi) the use of technologies that are appropriate to local conditions, and vii) an increased budget spending to the sector. The NWP clearly states that water resources should be vested under state control, at the same time it recognizes water as an economic good (Republic of Zambia 1994).

After the adoption of the NWP, the Water and Sanitation Act (WSA) of 1997 has been put into place. Furthermore, the NWP has also been reinforced by other sector legislations, such as the Public Health Act or the Environmental Pollution and Protection Act. Under the NWP and the WSA implementation strategies (such as the Periurban Water Supply and Sanitation Strategy, or the Community Water Supply and Sanitation Strategy) were

prepared for improving WSS. In this regard, considerable focus was placed on devolving authorities in WSS provision from central government to local authorities. However, tracking financial flows leads back to main line agencies in Lusaka (MLGH and Ministry of Energy and Water Development [MEWD]) and not to local authorities (Slaymaker and Newborne 2004).

Most local authorities have commercialized WSS and created commercial utilities – mainly in urban areas. In 2005, commercial utilities served about 40 per cent of Zambia's population (Dagdeviren 2008). The remaining WSS were provided by local authorities and alternative service providers. The WSA also established the National Water Supply and Sanitation Council (NWASCO) as the regulator for the provision of WSS. NWASCO, which became operational in 2001, is responsible for developing policies, setting standards and guidelines, licensing water and sanitation utilities and monitoring their performance. In this connection, NWASCO regulates local authorities and commercial utilities by issuing operators licences or entering into a formal agreement with the service provider. However, alternative service providers, such as the community managed Water Trust, operate outside the regulatory framework. The regulatory agency NWASCO reports to the MEWD, however, the responsibility for WSS provision is under the MLGH. This separation is meant to ensure a clear separation between regulatory and executive functions, as demaded within the NWP.

Zambia established its Interim-PRSP (I-PRSP) in 2000 followed by a full PRSP in 2002 that was agreed on by World Bank and International Monetary Fund (IMF) in the same year and qualified the country for debt relief under the Highly Indebted Poor Countries (HIPC) Initiative[19]. Its 2002 PRSP has incorporated water and sanitation as a component of infrastructure development and not as one of the major themes mentioned earlier in the paper, namely economic, social or cross-cutting. In doing so, the PRSP has taken away its

[19] The HIPC Initiative is a debt relief initiative, initiated at G-7 summit in Halifax (1995). It was connected with the establishment of PRSPs at the G-8 summit in Cologne (1999). In this regard, all highly indebted poor countries have to develop a PRSP, which qualifies them for debt relief (Walther and Hentschel 2003).

significance as a social good like health or education (ECA 2002). However, the paper builds on existing policies and strategies and therefore tries to continue its ongoing reform process in the water and sanitation sector.

In this regard, other important planning tools include the Transnational Development Plan (2002 – 2005) as well as the Public Investment Programme (PIP). The most recent fiscal planning tool is the Medium Term Expenditure Framework (MTEF). According to Slaymaker and Newborne (2004), under the Zambian MTEF line ministries are required to set up a sectoral advisory group in order to provide advice to each ministry on their medium term spending priorities. However, with such positive developments, challenges in ensuring convergence of these various planning tools should not be overseen.

In terms of sectoral shares of the 2002 PRSP budget (3 financial years), only 3.5 per cent of the total budget set out for poverty reduction objectives was planned for the water and sanitation sector (for the health sector a share of 16.7 per cent and for the education sector a share of 12.3 per cent was planned). The Joint Staff Assessment of World Bank and IMF on the Progress of the Zambian PRSP in 2004 came to the result that the water and sanitation sector in Zambia is underfunded, especially in rural areas. In this regard, a recent study by ODI and WaterAid (Slaymaker and Newborne 2004) found out that resource allocations for WSS in the first two years were greater than the resource envelope, as defined in the 2002 PRSP. The authors of the study have concluded that "*This shows that the budget ceilings laid out in the PRSP are being disregarded and raises questions as to the capacity of the Finance Ministry to exert control over different government spending bodies and effectively monitor expenditure across different sectors*" (Slaymaker and Newborne 2004: 10). Furthermore, this exemplifies the incoherent expenditure frameworks used by different government bodies responsible for different sectors. Moreover, the 2002 PRSP is highly dependent on external sources, as two thirds of its 1.2 billion USD budget is funded by external donors who have already designated their money for specific sectors or projects. This makes it very difficult for the Zambian government to ensure that budget allocations match those laid out in the PRSP (ibid.). Another striking point within the

PRSP budgetary process is the great variance between authorized provision and actual spending for water and sanitation. In 2000, the Zambian government spent only about 16 per cent of the total approved and authorized line items for water and sanitation. In 2001, this figure rose to 25 percent, which still remains extremely low. According to the above mentioned study, this fact does not derive from insufficient capacity to spend allocated money, but from a lack of accountability in decision-making at ministry-level. In this regard the Zambian Finance Ministry has repeatedly not approved releases. The study furthermore concludes, that there is "*[…] a certain element of political direction in actual funding releases. While overall levels of expenditure on WSS remain low, some agencies and certain districts were found to fare better than others*" (Slaymaker and Newborne 2004: 11). In this context, a good relation with the Ministry of Finance and National Planning was found out to be an important factor regarding uncertain revenue flows. Another important factor might be the domination of external donor sources within the Zambian water and sanitation sector, as external funding is difficult to predict and large donor projects are sometimes subject to delays or cancellations. This results in the conclusion that, "*while the legal framework is clear, Zambian budget process remain unsystematic and untransparent*" (Slaymaker and Newborne 2004: 12). In doing so, it suffers from a lack of transparency and accountability, resulting in a frequent repriorisation of resources that leads to a redirection of resources from unserved into better-served areas.

Coherence

Q1.1: The Zambian I-PRSP as well as the 2002 PRSP have been built upon existing policies and strategies in the water and sanitations sector. However, a recent assessment of the integration of water and sanitation in PRSPs (ODI 2004) has concluded that the whole Zambian water and sanitation sector is insufficiently aligned with the 2002 PRSP. This can be exemplified by the relatively low allocation to the provision of WSS as well as in the listing of indicators for monitoring the progress in WSS delivery.

Q1.2: Beside that, water and especially sanitation strategies such as the National Environmental Sanitation Action Plan (1999 – 2003) are in line with public health efforts such as the National Health Strategic Plan (2001 – 2005). In order to align WSS more

strongly with public health and health education, the Water, Sanitation and Hygiene Education (WASHE) concept - which has also been incorporated in the NWP - is being implemented by the Ministry of Health in cooperation with local governments.

Q1.3: The sector policy objectives as defined in the NWP and the 2002 PRSP are clear and self-explaining; clear strategies for achieving them are in place and coherent with the stated objectives.

Q1.4: The water and sanitation sector policy, NWP, as well as its strategies are incorporated in two expenditure programmes: PIP and MTEF. In this regard, almost all sources of funding were identified. However, a major challenge here is to ensure the convergence of these multi-years planning tools as well as to link them effectively with the annual budgetary process. When looking at the discrepancies between authorized provision of resources and actual spending, it can be concluded that this linking so far has failed.

Q1.5: The two main ministries within the sector are the MLGH and the MEWD. While the MLGH is responsible for policy formulation and implementation and WSS provision through local authorities, MEWD has – besides being mainly responsible for water resource management - a regulatory function overseeing the regulatory body NWASCO. The ministry of Health provides complementary services by coordinating the implementation of the WASHE concept.

Q1.6: The governments' role within the WSS sector is manifold. On the one side it regulates commercial utilities in providing WSS in urban and peri-urban areas. In rural areas the government itself acts as a service provider through local authorities.

Inclusiveness

Q2.1: In general, relevant Zambian policy documents as well as the 2002 PRSP provided very little targets for equality in access to WSS. General targets, as defined by the national statistical agency, are incorporated as well as a separation between access in rural and urban areas. However, a distinction between different income levels or even the sex of the head of a household have not been made.

Q2.2: The development of the NWP as well as in the case of most of its strategies, they were not developed based on a process of structural consultations with all relevant

stakeholders. However, as demanded by its consultative imperative, the 2002 PRSP has been based on a structural consultation process which resulted in a high visibility of the water and sanitation sector in the document. However, this achievement has not been accompanied by increased budget priority, or better alignment of the sector towards the PRSP (ODI 2004a), which indicates low political commitment to the PRSP in general as well as to commitments on water and sanitation in particular.

Q2.3: For the water and sanitation sector target groups have not been explicitly identified. However, certain groups are in the centre of the government's attention, namely the urban and peri-urban as well as rural poor. The concentration on certain intervention groups results in different strategies of reaching them.

Effectiveness

Q3.1: The NWP provides no clear monitoring and evaluation system. Nevertheless, its seven core principles can serve as a crude orientation on what to achieve. Most sector strategies have included certain measurements to assess their implementation, however, a comprehensive monitoring and evaluation system for the Zambian water and sanitation sector is not in place. The 2002 PRSPs Policy Matrix includes a monitoring and evaluation scheme. However, those indicators are very technical and do not measure whether the construction of a certain infrastructure has resulted in higher access rates.

Q3.2: Most indicators for measuring progress in implementation of water and sanitation strategies are of technical nature, measuring rather if infrastructure has been built than real access rates. On the macro level, the NWP provides seven core principles, where only three out of seven sector goals have been achieved yet.

Q3.3: One of the major constraints in implementing water and sanitation strategies in Zambia is its incoherent expenditure framework. In this regard, resources have not been allocated continually and in accordance with fiscal medium term planning.

Summary

The analysis of the Zambian policy framework for the provision of water and sanitation services has shown that the vertical coherence of the policy framework and the country's PRSP is not given. However, the horizontal coherence seems to do better as most policies related to the sector are more or less in line. The same can be stated for the strategies developed for achieving them. A major constraint in this regard is the fiscal framework, which displays inconsistencies in the planning as well as the release process. In this regard, the sector ministries´ roles are clearly defined. Another matter of concern is that sector policy documents provide only insufficient targets for measuring inequality in access to WSS. Policy formulation in this regard has not been participatory. Nevertheless, stakeholder consultations in the PRSP process have assured a high visibility of the sector in the country's PRSP which was, however, not backed by increased budget priority. Another matter of concern is the insufficient monitoring and evaluation system for measuring progress within the sector. Overall, as revealed by an ECA study (2007b) on Zambia's policy making process, as mentioned earlier, the water and sanitation sector suffers mainly from limitations within the implementation, monitoring and evaluation of the policy framework. Besides, the incoherent fiscal planning and funds release process is a major concern.

5.1.2 Uganda

Country overview

Uganda is a landlocked country in the East African region. The country has a population of around 31 million in 2007 that lives predominately in rural areas (UNSD, October 2009). Uganda covers a total surface area of around 240,000 km² (CIA, October 2009). It has a GDP at current prices of 403 USD in 2007 and a relative high Gini coefficient (0.46 in 2002) displaying the country's unequal income distribution. Its agrarian economy[20] grew around 7 per cent in 2008 despite the global financial turmoil and regional instability (African Economic Outlook, October 2009).

[20] Around 80 percent of the Ugandan population earning their livelihood in the agricultural sector (UNCTAD 2006).

Over the past years Uganda has made efforts in reducing poverty and strengthened its social development. In this regard, the proportion of the population living below the poverty line of 1 USD a day has dropped from 70 per cent in 1992 to 52 percent in 2005 (UNSD, October 2009). Also other indicators have shown positive trends over time such as the U5MR of 130 deaths per 1,000 live births (2007) which has been dropped from 175 in 1990 (UNICEF 2007). However, Uganda's social indicators still remain below average for Sub-Saharan Africa, resulting in a quite poor ranking within the HDI (157 out of 182 countries) (UNDP 2008).

Like Zambia, Uganda is adequately endowed with water resources. It is rich in lakes and rivers and its annual rainfall averages between 1,500 and 1,000 mm (CIA, October 2009). Estimates indicate around 66 km^3 of renewable water resources per year (ibid.). Nevertheless, Uganda faces constraints due to seasonal and spatial variability of water resources as well as an increasing water demand (Republic of Uganda 2000). However, also for Uganda the major problem in this connection is rather access than availability to safe drinking water.

Policy Framework

The Ugandan policy framework for water and sanitation is based on several policy reforms since the mid-1990s. The Ministry of Water and Environment (MWE) bear the main responsibility for formulating water and sanitation policies, coordinating and regulating the sector. Beside the MWE, several other line ministries play a role in the sector. The Finance Ministry coordinates funding and donor support, the Ministry of Local Government supports decentralized local governments, which manage their own water facilities. The Ministry of Health and the Ministry of Education and Sports are responsible for sanitation promotion and hygiene education in communities and schools. All those ministries, together with the Ministry of Public Service, donors, and civil society representatives have set up the Water and Sanitation Sector Working Group in 2001. This forum is responsible

for the whole sector coordination including the endorsement of MWE's annual budget (Syngellakis and Arudo 2006).

The Constitution of the Republic of Uganda from 1995 instructs to take all practical measures to promote a good water management system at all levels and defines safe drinking water as one of its 29 objectives. On this basis, the legislative water sector framework was established under the Ugandan Water Statue of 1995. In 1997, the Local Government Act provided the framework for decentralization of water services. Water and Sanitation issues were further incorporated in the Environmental Statue of 1995, the Water Resource regulations of 1998 as well as the Nile Basin Initiative of 1999. This framework represents a comprehensive regulatory framework for the sector management (Syngellakis and Arudo 2006).

The establishment of the National Water Policy for Uganda (NWPU) in 1999 followed a reform process initiated in 1998 (Water Action Plan) which aimed to reach the targets of Uganda's Poverty Eradication Action Plan (PEAP). Although PEAP does not explicitly address the MDGs, its goals are in many respects compatible with the MDG targets. One of NWPU's main objectives is the "*sustainable provision of safe water within easy reach and hygienic sanitation facilities […] for all social and economic needs of the present and future generations with the full participation of all stakeholders*". In doing so, the policy aims at i) promoting the rational use of water, ii) promoting the provision of safe water supply for domestic use, iii) promoting the orderly development of water resources for purposes other than domestic (agriculture industry mining, hydroelectric energy, navigation, fishing, conservation and recreation), iv) controlling pollution and promoting the safe storage, treatment and disposal of waste that pollutes water and harms health. This approach is based on a continued recognition of the social value of water, while also giving attention to its economic value (Syngellakis and Arudo 2006). The NWPU formulates the country's guidelines in the development of the water and sanitation sector, recognizing and incorporating international and national policies and principles as well as other relevant sector aspects. Subsequent the NWPU and sub-sector studies (for the following areas: rural

water supply and sanitation; urban water supply and sanitation; water for production; water resources management) a comprehensive sector strategy was developed, highlighting the importance of a sector-wide approach (SWAP)[21].

Under the NWPU the National Water and Sewerage Corporation (NWSC) has been reorganized. NWSC, which reports to the MWE and the Finance Ministry, currently owns and manages the assets of 18 of the 44 largest towns in the country, assets of the remaining urban towns are managed and owned by local governments (reporting to the MWE), which in many cases created water authorities and contracted out their services, a result of the government's decentralization efforts (GTZ 2006). In rural areas - where a demand responsive approach was put into practice - local governments are responsible for water and sanitation service provision.

In 1997, the Ugandan national development plan PEAP was developed; it set out specific goals, including universal access to safe drinking water. In 2000, PEAP was revised and used as a basis for Uganda's PRSP, which qualified the country for debt relief (WSP 2002). PEAP, under the Ugandan Vision 2025, is the basis for all sector plans and policies as well as donor programmes in the country. The water and sanitation sector has given a high profile in PEAP, as it has defined water and sanitation as one of its key priorities which are "*[…] directly improving quality of life of the poor*" (Republic of Uganda 2000: 29). The paper furthermore equates water and sanitation with other basic service sectors such as health and education. In doing so, it recognizes the sectors interrelations by, for example, stating the need for safe drinking water and improved sanitation to achieve health outcomes.

[21] According to the World Health Report 2000 of WHO, a SWAP brings together brings together governments, donors and other stakeholders within any sector. It is characterized by a set of operating principles rather than a specific package of policies or activities. The approach involves movement over time under government leadership towards: broadening policy dialogue; developing a single sector policy (that addresses private and public sector issues) and a common realistic expenditure programme; common monitoring arrangements; and more coordinated procedures for funding and procurement.

With the country's acceptance under the HIPC initiative for debt relief, the water and sanitation sector received a boost in funding, which has been included in the Poverty Action Fund (PAF), which serves as the budgetary mechanism through which debt relief funds and other earmarked donor funds are allocated (Slaymaker and Newborne 2004). The PAF is linked to the country's MTEF, which serves as a medium term planning tool for activities evolving out of the PEAP-consistent sector plans, and the annual budget. Beside that, the country fiscally prioritized the water and sanitation sector, which can be exemplified by the government's actual financial commitment that increased its annual government budget from 0.5 to 2.8 per cent between 1997 and 2008. The governments funding of the rural sub-sector, which is considered the government's main target area, is consequently the largest contribution. It encouraged many development partners to move towards budget support and resulted in the development of a SWAP (ibid.). Overall, the above cited ODI/ WaterAid study (Slaymaker and Newborne 2004: 28) on the implementation of water supply and sanitation programmes under PRSP's classifies Uganda's legal, policy and financing frameworks as coherent, having "*[…] included the development of strong coordination mechanisms through a sector-wide approach, decentralized service modalities, and the sector's full integration in the PRSP*".

Coherence

Q1.1: The country's whole policy framework is embedded in and consistent with the country's PRSP.

Q1.2: Relevant sector documents as well as PEAP are stating the strong interlinkages between the water and sanitation sector and other basic service sectors such as health.

Q1.3: The sector objectives and targets are clear and self-explaining and also strategies for achieving them are coherent.

Q1.4: The sector expenditure programme is transparent and convergent with other national planning tools such as the MTEF, the PAF and the annual budget. In this regard, all sources of funding have been identified.

Q1.5: The role of the sector ministry, MWE, is mainly the one of formulating and coordinating policies as well as of regulating the sector. The Ministry of Local

Government is, together with MWE, responsible for WSS delivery in rural areas through local governments. The Ministry of Finance, Planning and Economic Development coordinates the sector's funding. The Ministry of Health together with the Ministry of Education is responsible for sanitation promotion and hygiene education. All ministries' efforts in the water and sanitation sector are coordinated through a sector-wide working group.

Q1.6: The role of the Government of Uganda in the sector is the one of a regulator by having set up performance contracts with the NWSC and local governments. Furthermore, it acts as a service provider, through local governments in rural areas.

Inclusiveness

Q2.1: There are no specific targets, beside the differentiation between rural and urban areas, for measuring the equality in access to WSS. Access to water services in general is measured by its distance (<0.5 km), however, for sanitation services there are no adequate measures in place.

Q2.2: Policy formulation has been based on structural consultations with most of the relevant stakeholders. On top of that a policy coordination group, as a result of the development of a SWAP, has been implemented. This group ensures the adequate participation of all relevant stakeholders in the planning and implementation processes within the sector.

Q2.3: The rural population has been identified as the government's target group. Since 96 per cent of the country's poor are living in rural areas (Republic of Uganda 2001), this target strategy seems to be appropriate, as poor people are one of the most marginalized groups within the provision of WSS in Zambia. In order to reach them in a sustainable manner, a demand responsive approach has been implemented.

Effectiveness

Q3.1: The NWPU itself provides no effective monitoring and evaluation system. Nevertheless, its objectives and targets are providing a rough orientation as to the achievements within the sector. Sector strategies have included specific measurements,

however, these are only occasional efforts. Only the PEAP policy matrix serves as a kind of monitoring and evaluation framework for the system, however, it is not comprehensive.

Q3.2: A system for adequately and comprehensively measuring its policy implementation within the sector is missing. The objective of PEAP's policy matrix, however, can serve as orientation regarding efforts within the sector.

Q3.3: Uganda has a quiet coherent and transparent expenditure framework in place, which leaves only little room for complaints.

Summary

The analysis of the Ugandan water and sanitation policy framework has shown that the vertical as well as the horizontal coherence is fully given. In addition, a recent assessment (ODI 2004) on the integration of water and sanitation under PRSPs concludes that Uganda has a strong PRSP, which reflects the country's water and sanitation strategies sufficiently. Within the sector all strategies are adequately coordinated through a SWAP, showing that there is - beside political commitment - a distinctive institutional capacity for planning and coordination within the sector. Furthermore, relevant policy documents acknowledge the sector's interrelations to other basic service sectors such as health and education. The sector is incorporated in a sound fiscal planning and expenditure programme with clear defined roles and responsibilities. The only concern is its insufficient monitoring and evaluation system, which seems to be unsystematic with having included no adequate measures for equality as well as policy implementation in general. Beside that, the consultation process has been sufficient.

5.2 Summary

The analysis of both countries has shown, besides having very different outcomes within the DHS analysis in the previous chapter, great discrepancies in the policy planning and implementation process. Predominantly, the embededdness and consistency of the country's policy frameworks within its PRSPs is varying. While Uganda's water and sanitation sector is very much integrated in the country's PRSP, Zambia's water and sanitation sector is insufficiently aligned with its country's document. Another striking

difference is the planning process of both countries: Uganda, which has set up a SWAP for the sector, has a very well defined planning and management systems, especially its fiscal planning, in the water and sanitation sector. Zambia's sector seems to be more uncoordinated with having an incoherent fiscal planning and funds release process. Both countries, however, show weaknesses associated with poorly defined monitoring and evaluation systems by having insufficient measures for inequality in access to water and sanitation.

CHAPTER 6

Reflection on findings:

Basic services from a global public goods´ perspective

6. Introduction

This chapter aims at compiling conclusions and findings made by the previous chapters in order to foster the equality in access to basic services in African LDCs. In doing so, it will focus on access to water and sanitation services, as including basic services in general would probably result in crude outcomes[22]. In this regard, access to water and sanitation services will be considered through the lens of the global public goods approach as introduced in chapter 2. Consecutively, the question of how policy design - drawing from findings made in chapter 5 - can overcome shortcomings, as observed in chapter 4, will be addressed.

6.1 Are basic services global public goods?

First consider, as an example, the eight MDGs which together do not constitute so called pure public goods, but create an enabling framework for social development. In order to be reached, they need concerted collective action and much of this action lies in the public domain (Tipping et al. 2005). And indeed the publicness of any good is a policy choice, as it could be well argued that water is a private good, or that water and sanitation are public goods.

So when looking at basic services and more specifically at access to WSS it might be worth examining them towards the classical criteria of public goods, non-excludability and non-rivalry, remembering that non-excludability in this regard means that it is either not possible or prohibitively costly to exclude those who do not contribute to the access to WSS from accessing and consuming them. Non-rivalry implies that any person's access to

[22] The notion of basic services in general implies in this regard that findings of this chapter have the potential to be applied within the context of other basic services such as health and education.

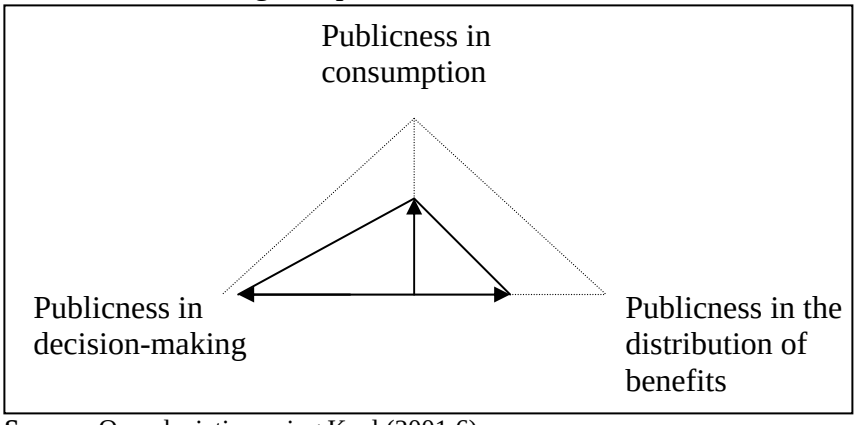
WSS has no effect on the amount of the accessibility to others. In practice, it can not clearly be stated whether access to WSS is excludable or not, as it is possible to exclude people from accessing water through house connections but excluding them from accessing public taps or boreholes, which are the most common water supply techniques in African LDCs, might be difficult to put into practice. The same accounts for sanitation facilities. However, the analysis in chapter 4 has shown that a wide range of households in African LDCs are de facto excluded from accessing WSS. But if there is adequate infrastructure available, exclusion might be difficult – except in the case of house connections and water vendors. So, access to WSS can be considered as partially excludable. In terms of non-rivalry, it can be stated that access to WSS is a rival good. In the case of water it is clear that this resource is a scare good and one person's consumption or access does reduce its overall capacity. In the case of access to sanitation, it would be the case that facilities, when more people or households start using them, become unimproved (see for clarifications annex 2) and therefore reverse their benefits into harms. So from the classical perspective of public goods, access to WSS is neither strictly non-excludable nor non-rival. However, its rivalry consumption is clear while its partial excludability can be seen within a grey shaded area. Thus access to WSS can not be considered as a pure public good but it might be reasonable to call them common pool resources, with some outliers within the excludability criterion, as access to WSS is aimed to be non-excludable.

The public (or private) status of access to WSS seems to differ from case to case, as for example within most countries in the OECD-world, access to WSS is often seen as a public good. But this has not always been like that; till the early 1800s, access to WSS was mainly considered as a private good, as it was in the responsibility of the people to have access to such services. When looking at the age of pest and cholera, access to WSS was transformed - by curbing their transmission - into a public good (see for example Lane 2001, chapter 8 on infections and disease control in England 1750-1950; or Stokes 2009, a case study on Sheffield (United Kingdom) which exemplifies how British authorities made access to WSS a public good in order to overcome the cholera epidemic). So, access to

WSS has experienced policy decisions putting it in the public domain or not. This is clearly showing that access to WSS has the potential to be made public by policy design.

Let's have a look at the current situation in African LDCs, by assessing the publicness of access to WSS, using Kaul's triangle of publicness and applying it on circumstances as observed in chapters 4 and 5 (figure 6.1). In this regard, the publicness in consumption of access to WSS can be considered as medium, since access to WSS is partially excludable. Its publicness in the distribution of benefits is more or less given, as benefits and harms such as infectious disease are quiet difficult to limit only to a certain group of actors. However, those groups that have access to WSS benefit in a more intense way than groups who have been excluded, such as rural communities or the poor. Therefore, this category can be considered as medium. When access to WSS is made public, then in order to achieve national as well as international agreed development goals such the MDGs or targets within national PRSPs or sector policies. Those development frameworks are in the public domain and all actions that are agreed on in order to achieve those goals are thus part of the public. Hence most decisions whether access to WSS should be placed in the public or not, are of public nature and therefore to a certain degree participatory. In addition, they involve – beside domestic actors - a wide range of global actors such as international organizations and other development partners. Therefore, the publicness in decision-making can be considered as given.

FIGURE 6.1 Triangle of publicness for access to WSS



Source: Own depiction using Kaul (2001:6)

Figure 6.1 shows that the publicness of access to WSS in African LDCs is mixed, as the consumption and the distribution of benefits are not completely public, but decision-making is. Furthermore, this sub-chapter so far identified that access to WSS is rival and made partially excludable in consumption, which places access to WSS, when assessed against Kaul et al.'s (2003) conceptual boundaries of global and national public goods (see table 2.2) in the national domain. So access to WSS can be considered as a national public good.

However, chapter 5 has shown that in order to achieve equal access to WSS, joint action – combining and coordinating national with international efforts as the example of Uganda's SWAP has shown - is a very important and crucial aspect. Most African LDC governments do not have an adequate budget and/ or fiscal management system (see for example Zambia as shown in chapter 5) as well as appropriate capacity to tackle structural shortcomings in the delivery of basic services. Therefore, they rely to a certain extent on development partners in order to be put into the situation to provide equal access to WSS for their populations. Moreover, providing equal access to WSS can be seen as a means for achieving IADGs such as the MDGs and the BPoA. So, it can be argued that national action combined with international efforts in order to reach national and international development goals is, in this regard, creating a certain policy outcome: equal access to WSS. Those policy outcomes have certain impacts – or externalities - as for example disease control and prevention, health and well-being in particular, as well as growth and social development in general. However, most of those invisible benefits and costs, which form the core interdependencies between countries and people, unfold their effects mainly on a national level.

Putting these observations together, it can be stated that access to WSS in African LDCs should be considered as a public good. Its publicness is more or less based on the national level, but requires international cooperation, which lies in the global public domain. Therefore, this study comes to the conclusion that access to WSS in African LDCs should

be defined as a public good with mostly having properties of a national public good which, however, requires international cooperation in order to be provided – making parts of the good global by human actions. This definition does assure that the ownership of providing equal access to WSS is vested in the hand of the nation-state, but clearly marks the importance for international cooperation – widening, in this regard, the domestic policy arena to the global sphere, as recent declarations and commitments on water and sanitation such as the Sharm El-Sheikh Declaration[23] exemplify.

6.2 How to design policy frameworks for equal access to basic services?

If access to WSS is yet considered as a public good, national policies play a key role in delivering them to their populations at large. Chapter 5 has shown that a well defined and coherent policy framework, such as in Uganda, has the potential to foster the equality in access to WSS. However, based on the findings of the previous sub-chapter, our understanding of policy coherence needs to be extended to the global sphere. So, policy frameworks need to recognize global policies such as the mentioned Sharm El-Sheikh Declaration and IADGs. In doing so, African governments need to cascade those global frameworks to the national level ensuring their national policies are adequately connected with global frameworks.

Furthermore, the policy-analysis has revealed the importance of a clear inclusive policy planning and implementation process, involving all relevant stakeholders such as development partners and line ministries. Another important point is the convergence and continuality of a comprehensive expenditure programme which also needs to involve all relevant stakeholders and line ministries, but foremost the national Finance Ministry. In this regard, a strong national development plan or PRSP, of which policies and sector strategies should be developed, is of same importance as the coherence of relevant sector

[23] The Sharm El-Sheikh Declaration was agreed on by the heads of state and governments of the African Union in Sharm El-Sheikh, Egypt in July 2008. It recognizes the importance of water and sanitation for social, economic and environmental development for Africa. It contains 20 commitments on water and sanitation.

policies on a horizontal level. If all strategies in this regard are linked with each other, interventions have the potential to be more effective and efficient and trade-offs can be minimized. In this regard, the case of Uganda has shown the positive impacts of government driven sector leadership through a well functioning and comprehensive SWAP.

In this regard, following policy recommendations in order to design adequate policy frameworks in African LDCs that foster the equality in access to basic services have been developed:

Strong PRSPs and national development plans as a basis for policy planning

African governments should strengthen their PRSPs or national development plans as their core planning document. They should be based on IADGs, other relevant development frameworks and international declarations, and be the basis from which all basic services sector policies should be developed. This procedure should assure vertical as well as horizontal policy coherence in order to secure a clear policy implementation process.

Strengthening the coordination within the sector

Coordination of the sector ministry with all relevant stakeholders including line ministries, foremost the Ministry of Finance, development partners, service providers, and all beneficiaries should be assured. In doing so, sectoral working groups, such as seen in Uganda, could be of great help in this regard. However, they need to be endowed with budgetary powers otherwise it is likely that they become a farce. In this regard, the development of a SWAP might be a good option, which, however, only should only be considered if there is sufficient state capacity within the sector.

Effective fiscal planning

In terms of fiscal planning and expenditure, it is of high relevance having a convergent expenditure system that links all planning tools within the country, such as MTEFs, annual budgets and donor budgets. Such a system assures that targets set out in national

development strategies and policies are more likely to be met. Moreover, the case of Uganda has shown that a clear and transparent public expenditure and planning framework contributes to policy implementation.

Effective and inclusive monitoring and evaluation systems

Another relevant point is to develop a proper monitoring and evaluation system for measuring achievements made within the sector as well as for policy implementation. By setting indicators, special attention should be paid to include measurements for socially disadvantaged groups. Moreover, goals for equality in access to basic services need to be developed.

6.3 Summary

This chapter has shown that access to WSS in African LDCs has been made a public good. However, it can not be considered as a pure global public good, as thought before, because its properties as well as side effects lie mainly in the national domain. In this regard, it has been shown that international cooperation is crucial for designing national policy frameworks that are meant to foster the equality in access to WSS. In addition, the findings marked the importance of policy coherence, effectiveness and inclusiveness within the design of policy frameworks as a means to foster the equality in access to WSS.

CHAPTER 7

Conclusions

This chapter will provide a final overview about findings made in the previous chapters and put them together. The aim of this study was to assess the degree of inequality in access to WSS – as representative to basic services in general - in African LDCs as well as of their policy frameworks in order to contribute to the design of policies to foster the equality in access to basic services and thus enhance progress towards IADGs in African LDCs.

The DHS analysis in chapter 4 has clearly shown that there are inequalities in all study countries and also despite the growth of general coverage rates for most sample countries, developments over time have not always been positive. In this regard, many countries, such as Zambia, Niger or Rwanda, have witnessed a dramatic spread of their equality gap in terms of economic inequalities. This development is associated with stronger growth rates among the water and sanitation coverage of wealthier parts of the populations, clearly showing that improvements in the water and sanitation sector have not been benefiting the poor. However, there are also a few positive developments in this regard, as for example in Uganda or in Malawi. Similarities can be observed when looking at spatial inequalities. It is not surprising that the rural-urban gap for access to WSS is big, but the fact that developments over time are revealing no significant improvements is distressing. Beside some outliers such as Mali or Uganda, most countries have witnessed mainly an increasing access to WSS in urban areas; in rural areas progress is less strong or even retrogressive (e.g. in Mali or Zambia). In terms of gender, the DHS analysis found no significant inequalities. Another interesting finding is that inequalities are much stronger for access to sanitation than for access to water services. Overall, the results are alarming, calling for adequate policy action leading to WSS delivery that stronger involves the poor and socially disadvantaged.

The case studies have revealed the suspicion that coherent, inclusive and effective policy frameworks foster the equality in access to WSS in particular. Uganda, which is one of the best performers out of the DHS analysis, has a well defined coherent and effective policy framework, which involves all relevant stakeholders. This has been supported by the strong sector leadership of the Ugandan government and the creation of a SWAP for the sector.

Chapter 6 has added one important point: as access to WSS was defined as a public good, which concern mainly the national sphere but relies on international cooperation, the need to cascade global development frameworks to the national level should be further emphasized. Furthermore, chapter 6 has drawn up on findings made in the previous chapter in order to give a first overview and policy recommendation on how policy frameworks have to be designed in order to foster the equality in access to WSS in African LDCs.

Overall, the findings mark the importance of policy coherence, inclusiveness and effectiveness in order to deliver equal basic services in African LDCs. However, as many African LDCs suffer from weak state capacities (UN-OHRLLS and UNDP 2006), capacity development in this regard needs to be strengthened. The case of Uganda has furthermore revealed the positive impacts of a government driven sector lead though a well functioning SWAP, displaying the need to adequately connect domestic policy actions with international cooperation in order to meet the demands of a public good that relies on international cooperation but mainly lies in the national sphere.

Finally, this study has not intended to answer all questions that have emerged during the research process, however, some of them seem to be worth mentioning in order to be addressed by consecutive studies. First more research on basic services delivery in general is needed in order to fully understand the complex nature of this issue. The WDR 2004 has made first attempts in closing this gap by providing a broad analytical framework for service delivery; however, this is not sufficient as it mainly focuses on a micro-economic analysis of principal-agent-relations between customers, service providers and the

bureaucracy, and thus does not address structural weaknesses associated with the delivery of basic services. In accordance to this study, research focusing on the quality of basic services using innovative micro-economic approaches such as value-for-money and combining them with findings made in this study should produce interesting results und further help to design adequate policies and reduce structural weaknesses within African LDCs. In addition, a broader range of comprehensive and comparable case studies could help to better understand which additional factors foster the equal provision of basic services within those countries.

References and Web Resources

African Economic Outlook, see http://www.africaneconomicoutlook.org/en/

Ahmad, J.; Devarajan, S.; Khemani, S. & S. Shah (2005): Decentralization and Service Delivery, *World Bank Policy Research Paper 3603*, World Bank: Washington D.C.

Amayo, J. (2003): Improving sustainable access to safe drinking water, *Paper for 29th WEDC International Conference*, Abuja.

Ashoff, G. (2005): Enhancing Policy Coherence for Development: Justification, Recognition and Approaches to Achievement, *DIE-Studies*, GDI: Bonn.

Barrett, S. (2007): Why Cooperate? The Incentive to Supply Global Public Goods, Oxford University Press: Oxford.

Bayliss, K. and S. Kessler (2006): Can Privatisation and Commercialisation of Public Services help achieve the MDGS? An Assessment, *IPC Working Paper number 22*, UNDP International Poverty Centre: Brasilia. Available online at: http://www.undp-povertycentre.org/pub/ IPCWorkingPaper22.pdf [1st August 2009]

Birdsall, N. & J. Nellis (2003): Winners and Losers: Assessing the distributional impact of privatization, *World Development*, 31 (10): 1617 – 1633.

Bitrán, G. & P. Arellano (2005): Regulating Water Services – Sending the Right Signals to Water Utilities in Chile, *Public Policy For The Private Sector*, March 2005, World Bank: Washington D.C.

Borrins, S. (1994): Government in Transition: A New Paradigm in Public Administration, Commonwealth Association for Public Administration and Management: Toronto.

Bourguignon, F.; Bénassy-Quéré, A.; Dercon, S.; Estache, A.; Gunning, J.W.; Kanbur, R.; Klasen, S.; Maxwell, S.; Platteau, J.-P. & A. Spadaro (2008): Millennium Development Goals at Midpoint: Where do we stand? *Study written for the DIFID, UK and the DG Development of the European Commission*, Brussels. Available online at: http://ec.europa.eu/development/icenter/repository/2008%2008%2019%20MDG_Where%20do%20we%20stand_first_draft.pdf [15 August 2009]

Bovaird, T. & E. Löffler (Eds.) (2003): Public Management and Governance, Routledge: London.

Cattaneo, M.; Galiani, S.; Gertler, P.; Martinez, S. & R. Titiunik (2009): Housing, Health and Happiness, *Economic Policy*, 1 (1): 75-105.

Central Statistical Authority of Ethiopia, Welfare Monitoring Survey, see http://www.csa.gov.et/available%20survey.htm

CIA World Factbook, see https://www.cia.gov/library/publications/the-world-factbook/index.html

Clarke, G.; Kosec, K. & S. Wallsteen (2004): Has Private Participation in Water and Sewerage Improved Coverage? Empirical Evidence from Latin America, *World Bank Policy Research Working Paper 3445*, Washington D.C.

Clayton, A.; Oakley, P. & J. Taylor (2000): Civil Society Organizations and Service Provision, *Civil Society and Social Movements Programme Paper Number 2*, UNRISD: Geneva. Available online at: http://www.unrisd.org/unrisd/website/document.nsf/240da49ca467a53f80256b4f005ef245/19ab2640214382a380256b5e004c94c5/$FILE/intrac.pdf [15 August 2009]

Coase, R. (1937): The nature of the firm, *Economica*, 4: 386-405.

Conceicao, P. (2003): Assessing the Provision Status of Global Public Goods, *Providing Global Public Goods – Managing Globalization*, edited by Kaul, I.; Conceicao, P.; Goulven, K. & R. Mendoza, Oxford University Press: New York/ Oxford.

Cornes, R. and T. Sandler (1994): Are Public Goods Myths?, *Journal of Theoretical Politics*, 6 (3): 369-385.

Cornes, R. and T. Sandler (1996): The Theory of Externalities, Public Goods, and Club Goods. Cambridge University Press: Cambridge.

Dagdeviren, H. (2008): Waiting for Miracles: Commercialization of Urban Water Services in Zambia, *Development and Change*, 39 (1): 101-121.

Dagdeviren, H. & S. Robertson (2008): Reforming without Resourcing: The Case of the Urban Water Supply in Zambia, *Policy Research Brief No. 8*, UNDP International Poverty Centre: Brasilia. Available online at: http://www.undp-povertycentre.org/pub/IPCPolicyResearchBrief8.pdf [15 August 2009]

Dawes, R. (1973): The Commons Dilemma Game: An *N*-Person Mixed-Motive Game with a Dominating Strategy for Defection, *ORI Research Bulletin*, 13: 1-12.

DFID (2007): Water is life sanitation is dignity, *Sanitation Policy Background Paper*, London.

DHS database, see http://www.measuredhs.com/accesssurveys/

EC (2003): Guidelines for European Commission Support to Sector Programmes, EuropeAid: Brussels.

ECA/ AU/ AfDB (2009): Assessing Progress in Africa toward the Millennium Development Goals Report 2009, Addis Ababa.

ECA (forthcoming): Strengthening social inclusion, gender equity and health promotion in the Millennium Development Goals in Africa, Addis Ababa.

ECA (2009): African Governance Report II, Oxford University Press: Oxford.

ECA (2008a): Mainstreaming Health Equity in the Development Agenda of African Countries, Addis Ababa. Available online at: http://www.uneca.org/acgd/docs/Health%20Equity_2009_Final.pdf [15 July 2009]

ECA (2008b): Concentration curves and indices as vital tools for health policy analysis, *Manual prepared for the "Using knowledge sharing to build and reinforce capacity for health Millennium Development Goals in Africa" Conference*, Addis Ababa.

ECA (2007a): Public Expenditure and Service Delivery in Africa: Perspectives on Policy and Institutional Framework, *ECA Policy Research Report*, Addis Ababa. Available online at: http://www.uneca.org/eca_programmes/trade_and_regional_integration/documents/ECA%20Policy%20Research%20Report_08.pdf [15 August 2009]

ECA (2007b): Monitoring Progress Towards Good Governance in Zambia, *Country Report for the African Governance Report II*, Centre for Policy Research & Analysis: Lusaka.

ECA (2006): Challenges and Opportunities for African Least Developed Countries, *Progress Report on the Implementation of the Brussels Plan of Action for African Least Developed Countries, Mid-Term Review 2001-2005*, Addis Ababa.

ECA (2005): Economic Report on Africa 2005 - Meeting the Challenges of Unemployment and Poverty in Africa, Addis Ababa. Available online at: http://www.uneca.org/ERA2005/full.pdf [15 August 2009]

ECA (2004): Public Sector Management Reforms in Africa, Addis Ababa. Available online at: http://www.uneca.org/publications/dpmd/public_sector_mangt.pdf [15 August 2009]

ECA (2002): The PRSP Process in Zambia, *Report prepared for the second meeting of the African Learning Group on the Poverty Reduction Strategy Papers in Brussels 18-21 November 2002*, Addis Ababa.

ESCAP (2007): Access to Basic services for the Poor: The Importance of Governance, *Asian-Pacific MDG Study Series*, Bangkok. Available online at: http://www.mdgasiapacific.org/files/shared_folder/documents/MDG_Access_to_basic_services.pdf [15 August 2009]

Faust, M.; Kaul, I.; Le Goulven, K.; Ryu, G. & M. Schnupf (eds.) (2001): Global Public Goods: Taking the Concept Forward, *ODS Discussion Paper 17*, UNDP: New York.

Ferroni, M. (2001): Regional Public Goods in Official Development Assistance, *INTAL-ITD-STA Occasional Paper 11*, Inter-American Development Bank: Washington D.C.

Fowler, A. (1999): Civil Society, NGDOs and Social Development: Changing the Rules of the Game, *UNRISD Occasional Paper 1*, UNRISD: Geneva. Available online at: http://www.unrisd.org/unrisd/website/document.nsf/d2a23ad2d50cb2a280256eb30

0385855/f553495f06f98dce80256b5e005c9ddc/$FILE/fowler.pdf [15 August 2009]

Fukuda-Parr, S. (2008): Are Internationally Agreed Development Goals being implemented in national development strategies and aid programmes? A review of Poverty Reduction Strategy Papers and development cooperation statements, *International Affairs Working Paper 2008-6*, The New School: New York. Available online at: http://www.gpia.info/files/u16/Fukuda-Parr_2008-06.pdf [15 October 2009]

Gao, A. (2002): Equity and Health, *Equity and Health: views from the Pan American Sanitary Bureau, Occasional Publication No. 8*, PAHO: Washington D.C.

GSDRC (2006): Service Delivery, University of Birmingham. Available online at: http://www.gsdrc.org/go/topic-guides/service-delivery [15 August 2009]

GTZ Ethiopian Social Accountability Program, see http://www.gtz.de/weltweit/afrika/aehtiopien/23596.htm

GTZ (2006): Regulation and Supervision in Water Supply and Sanitation, *Case Sheet Uganda*, Eschborn. Available online at: http://www.gtz.de/de/dokumente/en-casesheet-regulation-water-sanitation-uganda.pdf [15 September 2009]

Guarcello, L; Lyon, S. & F. Rosati (2004): Child Labour and Access to Basic Services: Evidence from five Countries, *Understanding Children's Work Project*, ILO/ UNICEF/ World Bank: Rome. Available online at: http://www.ucw-project.org/pdf/publications/standard_infrastructure19February2004.pdf [15 August 2009]

Hallingan, J. (2001): Comparing Public Sector Reform in OECD, *Public Sector Reform: An International Perspective*, edited by Nolan, B., Macmillan: Hampshire.

Hardin. G. (1968): The Tragedy of the Commons, *Science*, 162: 1243-1248.

Hermann, M. & H. Khan (2008): Rapid urbanization, employment crisis and poverty in African LDCs: A new development strategy and aid policy, *MPRA Paper No. 9499*, Geneva. Available online at: http://mpra.ub.uni-muenchen.de/9499/1/MPRA_paper_9499.pdf [15 August 2009]

Hirschmann, A. (1970): Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations and States, Harvard University Press: Cambridge.

Hughes, O. E. (1998): Public Management and Administration: An Introduction, Macmillan: Basingstoke.

Hume, D. (2004) [1739]: A Treatise of Human Nature, Dover Publications: Mineola.

Hood, C. (1991): A Public Management for all Seasons? *Public Administration*, 69 (1): 3-19.

Hobbes, T. (1986) [1651]: Leviathan, Reclam: Ditzingen.

IMF/ World Bank (2004): Zambia: Poverty Reduction Strategy Paper Progress Report, *Joint Staff Assessment*, Washington D.C.

IMF (2002): The Role of Capacity-Building in Poverty Reduction, *IMF Issue Brief 02/02*. Available online at: http://www.imf.org/external/np/exr/ib/2002/031402.htm [15 August 2009]

International Task Force on Global Public Goods, see http://www.gpgtaskforce.org/

IPCC (2008): Climate Change and Water, *IPCC Technical Paper No. VI*, Geneva. Available online at: http://www.ipcc.ch/pdf/technical-papers/climate-change-water-en.pdfInternational [15 September 2009]

ITFGPG (2006): Meeting Global Challenges: Cooperation in the National Interest, *Final Report*, Stockholm. Available online at: http://www.gpgtaskforce.org/show_file.aspx?file_id=169 [15 October 2009]

Jütting, J.; Kauffmann, C.; Mc Donnell, I.; Osterrieder, H.; Pinaud, N. & L. Wegener (2004): Decentralisation and Poverty in Developing Countries: Exploring the Impact, *OECD Development Centre Working Paper No. 236*, OECD: Paris.

Kanbur, R.; Sandler, T. & K. Morrison (1999): The Future of Development Assistance: common pools and international public goods. John Hopkins University Press: Baltimore.

Kauffmann, C. & E. Pérard (2007): Stocktacking of the water and sanitation sector and private sector involvement in selected African countries, *Background note on the Regional Roundtable on Strengthening the Investment Climate Assessment and Reform in NEPAD Countries*, Lusaka.

Kaul, I. & R. Mendoza (2003): Advancing the Concept of Public Goods, *Providing Global Public Goods – Managing Globalization*, edited by Kaul, I.; Conceicao, P.; Goulven, K. & R. Mendoza, Oxford University Press: New York/ Oxford.

Kaul, I.; Conceicao, P.; Goulven, K. & R. Mendoza (eds.) (2003): Providing Global Public Goods – Managing Globalization, Oxford University Press: New York/ Oxford.

Kaul, I. (2001): Public Goods in the 21st Century, *Global Public Goods: Taking the Concept Forward*, edited by Faust, M.; Kaul, I.; Le Goulven, K.; Ryu, G. & M. Schnupf, *ODS Discussion Paper 17*, UNDP: New York.

Kaul, I.; Grunberg, I. & M. Stern (eds.) (1999): Global Public Goods – International Cooperation in the 21st Century, Oxford University Press: New York/ Oxford.

Kessides, C. (2006): The Urban Transition in Sub-Saharan Africa – Implications for Economic Growth and Poverty Reduction, Cities Alliance: Washington D.C. Available online at: http://www.citiesalliance.org/publications/homepage-features/sept-06/ssa.html [15 August 2009]

Lane, J (2001): A social history of medicine: health, healing and disease in England, 1750-1950, Routledge: London.

Langford, M. (2009): Keeping Up with the Fashion: Human Rights and Global Public Goods, *International Journal on Minority and Group Rights*, 16: 165-179.

Nokes, C. & D. Bundy (1993): Compliance and absenteeism in school children: Implications for helminth control. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 87: 148 - 52.

Manning, N. (2000): The New Public Management and its Legacy, World Bank: Washington D.C. Available online at: http://go.worldbank.org/WWXPWDXHR0 [15 August 2009]

Marcus, R.; Piron, L.-H. & T. Slaymaker (2004): Basic Services and Social Protection, *Paper produced for DFID*, ODI: London. Available online at: http://www.odi.org.uk/resources/download/1079.pdf [15 August 2009]

Martens, J. & R. Hain (2002): Globale öffentliche Güter – Zukunftskonzept für die internationale Zusammenarbeit? Heinrich Böll Stiftung/ WEED: Berlin/ Bonn. Available online at: http://www2.weed-online.org/uploads/gpg2002.pdf [10. October 2009]

Mehrotra, S.; Vandermoortele, J. & E. Delamonica (2000): Basic Services for All? Public Spending and the Social Dimensions of Poverty, UNICEF Innocenti Research Centre: Florence.

Mehta, L. (2003): Problems of Publicness and Access Rights: Perspectives from the Water Domain, *Providing Global Public Goods – Managing Globalization*, edited by Kaul, I.; Conceicao, P.; Goulven, K. & R. Mendoza, Oxford University Press: New York/ Oxford.

Medeiros, M. & J. Costa (2008): What Do We Mean by "Feminization of Poverty"? *One Pager*, UNDP International Policy Centre for Inclusive Growth: Brasilia. Available online at: http://www.undp-povertycentre.org/pub/IPCOnePager58.pdf [15. August 2009]

Moghadam, V.M. (2005): The `Feminization of Poverty´ and Women's Human Rights, *SHS Papers in Women's Studies/ Gender Research No. 2*, UNESCO: Paris. Available online at: http://portal.unesco.org/shs/fr/files/8282/11313736811 Feminization_of_Poverty.pdf/Feminization%2Bof%2BPoverty.pdf [15. August 2009]

Mohan, T.T.R. (2001): Privatisation: Theory and Evidence, *Economic and Political Weekly*, 29.12.: 4865-4871.

Nuscheler, F.; Debiel, T. & D. Messner (2006): Globale Verwundbarkeiten und die Gefährdung „menschlicher Sicherheit", *Globale Trends 2007*, edited by Nuscheler, F.; Debiel, T. & D. Messner, Fischer Verlag: Frankfurt/M.

Oakley, P. (1999): NGO Impact Study: Overview Report, Ministry of Foreign Affairs: Copenhagen.

ODI (2004a): Towards Better Integration of Water and Sanitation in PRSPs in Sub-Saharan Africa – Lessons from Uganda, Malawi and Zambia, *WPP Briefing Paper No. 5*, London. Available online at: www.odi.org.uk/resources/download/1023.pdf [15 September 2009]

ODI (2004b): From Plan to Action: Water Supply and Sanitation for the Poor in Africa, *ODI Briefing Paper*, London. Available online at: www.odi.org.uk/resources/download/1008.pdf [15 September 2009]

ODI (2002): Poverty Reduction and Water: `Watsan and PRSP` in sub-Saharan Africa, *Water Policy Brief 3*, London. Available online at: www.odi.org.uk/resources/download/996.pdf [15 September 2009]

OECD Glossary of Statistical Terms, see: http://stats.oecd.org/glossary/

OECD (2009): Private Sector Participation in Water Infrastructure – OECD Checklist for Public Action, Paris. Available online at: http://www.oecd.org/dataoecd/36/13/42362893.pdf [15 September 2009]

Okaromon, E. & J. Amayo (2005): Removing barriers of access to services – A Case of National Water and Sewerage Cooperation (Uganda), *Paper for the 31st WEDC International Conference*, Kampala.

Okojie, C. & A. Shimeles (2006): Inequality in sub-Saharan Africa: a synthesis of recent research on the levels, trends, effects and determinants of inequality in its different dimensions, The Inter-Regional Inequality Facility/ ODI: London. Available online at: http://www.odi.org.uk/resources/download/3111.pdf [15 August 2009]

Olson, M. (1968): The Logic of Collective Action, Schocken Books: New York.

Olowu, D. (2000): Introduction New Public Management: An African Reform Paradigm? *Africa Development*, 27 (3+4): 1-16.

Osborne, D. & T. Gaebler (1992): Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector, Penguin: New York.

Ostrom, Elinor (1990): Governing the Commons – The Evolution of Institutions for Collective Action. Cambridge University Press: Cambridge.

Prasad, N. (2006): Current issues in Private sector participation (PSP) in water services, *Development Policy Review*, 24 (6): 669-692.

Prüss, A.; Kay, D.; Fewtrell, L. & J. Bartram (2002): Estimating the burden of disease from water, sanitation and hygiene at a global level, *Environmental Health Perspectives*, 110 (5): 537-542.

Politt, C. & G. Boukaert (2004): Public Management Reform – A Comparative Analysis, Oxford University Press: Oxford.

Republic of Uganda (2005): Poverty Reduction Strategy Paper: Uganda's Poverty Eradication Action Plan 2004/05-2007/08, Ministry of Finance, Planning, and Economic Development: Lusaka.

Republic of Uganda (2001): Poverty Status Report 2001, Ministry of Finance, Planning, and Economic Development: Lusaka.

Republic of Uganda (2000): Poverty Reduction Strategy Paper: Uganda's Poverty Eradication Action Plan Summary and Main Objectives, Ministry of Finance, Planning, and Economic Development: Lusaka.

Republic of Uganda (1999): National Water Policy for Uganda, Ministry of Water and Environment: Lusaka.

Republic of Uganda (1997): Uganda's Poverty Eradication Action Plan, Ministry of Finance, Planning, and Economic Development: Lusaka.

Republic of Uganda (1995): Constitution of the Republic of Uganda, Lusaka. Available online at: http://www.ugandaonlinelawlibrary.com/files/constitution/constitution_1995.pdf [15 September 2009]

Republic of Zambia (2005): Fifth National Development Plan 2006 – 2010, Ministry of Finance and National Planning: Lusaka.

Republic of Zambia (2002): Zambia Poverty Reduction Strategy Paper 2002 – 2004, Ministry of Finance and National Planning: Lusaka.

Republic of Zambia (2000): Interim Poverty Reduction Strategy Paper, Ministry of Finance and National Planning: Lusaka.

Republic of Zambia (1994): National Water Policy, Ministry of Local Government and Housing: Lusaka.

Riddel, R.; Kruse, S.-R.; Kylonnen, T.; Ojanpera, S. & J.-L. Vielajus (1997): Searching for Impact and Methods: NGO Evaluation Synthesis Study for OECD/DAC, Ministry of Foreign Affairs: Helsinki.

Rutsein, S.O. & K. Johnson (2004): The DHS Wealth Index, *DHS Comparative Reports No. 6*, Measure DHS and Macro International: Calverton.

Sagasti, F. & K. Bezanson (2001): Financing and Providing Global Public Goods: Expectations and Prospects, *Study 2001:2*, Ministry for Foreign Affairs Sweden: Stockholm.

Samuelson, P. (1954): The Pure Theory of Public Expenditure, *Review of Economics and Statistics*, 11: 387-389.

Sandler, T. (2003): Assessing the Optimal Provision of Public Goods: In the Search of the Holy Grail, *Providing Global Public Goods – Managing Globalization*, edited by Kaul, I.; Conceicao, P.; Goulven, K. & R. Mendoza, Oxford University Press: New York/ Oxford.

Sandler, T. (2001): On Financing Global and International Public Goods, *Policy Research Working Paper 2638,* World Bank: Washington D.C.

Sandler (1999): Intergenerational Public Goods – Strategies, Efficiency and Institution, *Global Public Goods – International Cooperation in the 21st Century*, edited by Kaul, I.; Grunberg, I. & M. Stern, Oxford University Press: New York/ Oxford.

Sandler, T. (1997): Global Challenges, Cambridge University Press: Cambridge.

Schröter, E. & H. Wollmann (2005): New Public Management, *Handbuch zur Verwaltungsreform,* edited by Blanke B.; Bandemaer, S. von; Nullmeier, F. & G. Wewer, VS-Verlag: Wiesbaden.

Schmanske, S: (1991): Public Goods, Mixed Goods, and Monopolistic Competition, Texas A&M University Press: College Station.

Sievers, P. (2006): Challenges for Integrated Water Resources Management in Zambia, Royal Danish Embassy: Lusaka.

SIWI & UN Millennium Project (2005): Health, Dignity and Development: What will it take? United Nations Project Task Force on Water and Sanitation: New York.

Slaymaker, T. & P. Newborne (2004): Implementation of Water and Sanitation Programmes under PRSPs – Synthesis of research findings from sub-Sahara Africa, *Water Policy Report No. 2*, ODI/ WaterAid: London.

Smith, A. (2003) [1776]: The Wealth of Nations, Bantam Classics: New York.

Soares, L. C. R.; Griesinger, M.O.; Dachs, N.W.; Bittner, M.A. & S. Tavares (2002): Inequities in access to and use of drinking water services in Latin America and the Caribean, *Rev Panam Salud Publica,* 11 (5-6), PAHO: Washington D.C.

Stalgren, P. (2000): Regional Public Goods and the Future of International Development Co-operation, *Working Paper 2000:2*, Ministry of Foreign Affairs Sweden: Stockholm.

Stokes, J. (2009): The History of the Cholera Epidemic of 1932 in Sheffield, BiblioBazaar: Brighton.

Syngellakis, K. & E. Arudo (2006): Uganda: Water Sector Policy Overview Paper, ENABLE: Lusaka. Available online at: http://www.enable.nu/publication/Water_Policy_Overview_Uganda.pdf [15 September 2009]

Tipping, D.; Adom, D. & A. Tibaijuka (2005): Achieving Healthy Urban Futures in the 21st Century, UN-Habitat: Nairobi.

Trémolet, S. & C. Hunt (2006): Taking Account of the Poor in Water Sector Regulation, *Water Supply and Sanitation Working Notes No. 11*, World Bank: Washington D.C.

UN (2005): The Inequality Predicament, *Report on the World Social Situation 2005*, New York.

UNCTAD (2009): The Least Developed Countries Report 2009, The State and Development Governance, New York and Geneva.

UNCTAD (2008): The Least Developed Countries Report 2008, Growth, Poverty and the Terms of Development Partnership, New York and Geneva.

UNCTAD (2006a): The Least Developed Countries Report 2006, Developing Productive Capacities, New York and Geneva.

UNCTAD (2006b): Case Study on Uganda, *Ad Hoc Expert Meeting in preparation for the Mid-term Review of the Programme of Action for the Least Developed Countries fro the Decade 2001-2010,* Geneva/ New York.

UNDESA (2006): Social Justice in an Open World – The Role of the United Nations, The International Forum for Social Development, New York.

UNDP Water Supply and Sanitation**,** see http://www.undp.org/water/priorityareas/supply.html

UNDP (2008): Human Development Indices, A statistical update 2008, New York.

UN Millennium Development Goals, see: http://www.un.org/millenniumgoals/ For MDG indicators, see: http://mdgs.un.org/unsd/mdg/Default.aspx

UNSD database; see http://unstats.un.org/unsd/default.htm

UN-OHRLLS, see http://www.unohrlls.org/en/home/

UN-OHRLLS/ UNDP (2006): Governance for the Future: Democracy and Development in Least Developed Countries, New York.

UN-OHRLLS (2006): Breaking Barriers – Gender Perspectives and Empowerment of Women in Least Developed Countries, New York.

UNICEF Multiple Indicator Cluster Survey, see: http://www.childinfo.org/mics.html

UNICEF (2008): The State of the World's Children 2009: Maternal and Newborn Health, New York.

UNICEF (2006): Children and water, sanitation and hygiene: The evidence, *Issue Note for the UNDP 2006 Human Development Report*, New York.

UNITAR (n.d.): Access to Basic Services for All, Two key issues, *A booklet based on consultations with governmental officials, local authorities, enterprises, civil society organizations and international organisations*, Geneva.

Ver Ecke, W. (1999): Public Goods: An ideal concept, *Journal of Socio-Economics*, 28: 139-156.

Vicary, S. & T. Sandler (2002): Weakest-Link Public Goods: Giving In-Kind or Transferring Money, *European Economic Review*, 46 (8): 1501-1520.

Walther, M. & C. Hentschel (2002): Armutsstrategiepapiere (PRSP) - Neuanfang in der Strukturanpassungspolitik von IWF und Weltbank? WEED: Berlin. Available online at: http://www.weed-online.org/themen/iwf/17706.html [15 September 2009]

Weber, Max (1988): Gesammelte Aufsätze zur Wissenschaftslehre, UTB: Stuttgart.

WHO World Health Survey, see: http://www.who.int/healthinfo/survey/en/index.html & http://surveydata.who.int/index.html

WHO (2004): Review of evidence on housing and health, *Background document for the Fourth Ministerial Conference on Environment and Health in Budapest*, Bonn.

WHO and UNICEF Joint Monitoring Programme for Water Supply and Sanitation, see http://www.wssinfo.org/en/welcome.html

WHO/ UNICEF (2008): Joint Monitoring Programme for Water Supply and Sanitation – Coverage Estimates, Geneva/ New York.

WHO/ UNICEF (2004): Joint Monitoring Programme for Water Supply and Sanitation – Policies and Procedures, Geneva/ New York.

WHO (2009): World Health Statistics, Geneva. Available online at: http://www.who.int/whosis/whostat/EN_WHS09_Full.pdf [15 August 2009]

WHO (2000): World Health Report, Geneva. Available online at: http://www.who.int/entity/whr/2000/en/whr00_en.pdf [15 September 2009]

WaterAid (2007): Global cause and effect: How the aid system is undermining the Millennium Development Goals. London.

World Bank (2008a): Are you being served? New Tools for Measuring Service Delivery, Washington D.C.

World Bank (2008b): World Development Indicators 2008, CD-Rom, Washington D.C.

World Bank (2003): World Development Report 2004, Making Services Work for Poor People, Washington D.C.

World Bank (2001): Effective Use of Development Finance for International Public Goods, *Global Development Finance 2001*, 5: 109-135. Available online at: www.worldbank.org/prospects/gdf2001/CH5-108-135.pdf [10 October 2009]

WSP (2003): Water Supply and Sanitation in Poverty Reduction Strategy Papers in Sub-Saharan Africa: Developing a Benchmarking Review and Exploring the Way Forward, World Bank: Nairobi. Available online at: http://www.sulabhenvis.in/admin/upload/pdf_upload/af_bg_uganda.pdf [15 October 2009]

WSP (2002): Water and Sanitation Sector Reform in Uganda: A Government-Led Transformation, World Bank: Nairobi. Available online at: http://siteresources.worldbank.org/INTPRS1/Resources/PDFs/wss_in_prsp.pdf [15 October 2009]

Zema Setoch Lefith/ WaterAid/ Maedot (2009): Giving a Voice to the Voiceless: A toolkit on how to use community scorecards and citizen report cards to assess the delivery of basic services in Ethiopia, Addis Ababa.

Annex 1. Analytical Framework for assessing the coherence, inclusiveness and effectiveness of Policy Frameworks[24]

1. Coherence

Q1.1: Are relevant sector policies are embedded in and consistent with the national development plan/ PRS?

Q1.2: Do water and sanitation policies recognize interrelations with other sectors such as health and education?

Q1.3: Are the stated sector policy objectives clear and are the strategies for achieving them coherent?

Q1.4: Are sector policies incorporated into a coherent expenditure programme, which identifies all sources of funding for public expenditure?

Q1.5: Is the role of the sector ministry (as well as other relevant ministries) clearly understood?

Q1.6: Is the intended role of the government in the sector well defined (service provider or regulator)?

2. Inclusiveness

Q2.1: Does the sector policy include specific targets for (equality in) access to service delivery?

Q2.2: Has the policy been based on a structural process of consultation and involvement of sector stakeholders?

Q2.3: Have target groups been specified and has a strategy for reaching them been defined?

3. Effectiveness

Q3.1: Is there an effective Monitoring and Evaluation System for measuring achievements (outputs and outcomes of the sector as a whole) within the sector in place?

Q3.2: Are there adequate measures in place for assessing the policies degree of implementation and, in this regard, have water and sanitation policies to an acceptable level been implemented?

Q3.3: Have all stated sources for public spending been allocated continually and in accordance to financial planning.

[24] Adapted from European Commission (2003).

Annex 2. Definition of used Indicators[25]

Access to safe drinking water

This is the percentage of the population which:

a) Uses any of the following types of water supply for drinking water: piped water into dwelling, plot or yard; public tab/ standpipe; borehole/ tube well; protected dug well; protected spring; rainwater collection and bottled water[26]. It does not include unprotected well; unprotected spring; water provided by small carts with small tanks/ drums; tanker truck provided water; or surface water taken directly from rivers, ponds, streams, lakes, dams, or irrigation channels.
b) Needs less then 15 minutes to get to the water source for drinking water.

Special rules for wells and springs: protected versus non-protected:

If one DHS does not classify wells or springs as "protected", but the proportion of protected wells or springs is available from other surveys, then this proportion will be used to estimate coverage for protected wells and springs. If more than one survey can provide the needed information, data from the survey that was carried out in the year closest to that of the DHS will be used. If there is no data on the proportion of protected wells or springs, then this study assumes that one half of the wells and springs are protected (see annex 6 for specific coverage estimates).

Access to improved sanitation facilities

This is the percentage of the population with:

a) Access to facilities that hygienically separate human excreta from human contact. Improved facilities include flush or pour-flush toilets or latrines connected to a sewer, a septic tank, or a pit; ventilated improved pit latrines, pit latrines with a slab or platform of any material which covers the pit entirely, except for the drop whole; and composting toilets/ latrines. Unimproved facilities include public or shared facilities of an otherwise acceptable type, flush or pour-flush toilets or latrines which discharge directly into an open sewer or ditch; pit latrines without a slab; bucket latrines; hanging toilets or latrines which discharge directly in water bodies or into the open; and the practice of open defecation in the bush, field, or bodies of water.
b) Access to improved sanitation facilities as described in a) which are not shared with other households or open for public use. Due to the high amount of missing values within this question, people who did not answer this question, but had improved or unimproved sanitation facilities as described in a) were considered unimproved and therefore not assigned as missing values. This is due to the assumption that people who are not answering this question might not know if other people use their

[25] Adapted from the MDGs Metadata, available at *http://mdgs.un.org/metadata.aspx* and the WHO and UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2004) Policies and Procedures.

[26] Bottled water is usually considered an improved source of drinking water, if the secondary source is also an improved one. However, for the purpose of this report and due to its small share on *n*, bottled water will be directly considered as an improved source.

facilities, or they are ashamed to tell that they are sharing their sanitation facilities with other households. However, some DHS rounds do not provide this information. In such cases the overall amount of improved or unimproved facilities will be estimated based on other surveys proportions.

Special rules for latrines:

Although latrines are classified as improved, DHSs use categories like simple latrine, traditional latrine, non ventilated latrine, simple pit, pit, pit latrine, non ventilated pit latrine or traditional pit interchangeably. Such categories are known to include facilities that are neither sanitary, nor private. Hence, they are not considered improved in their entirety and therefore count only 50% in coverage estimates. If the proportion of improved latrines is available from other surveys, this will be applied to coverage estimates from DHSs that specify only latrine, simple latrine, traditional latrine, non ventilated latrine, simple pit, pit, pit latrine, non ventilated pit latrine or traditional pit (see annex 6 for specific coverage estimates).

Annex 3. Construction of the Concentrations Index

The concentration index is defined as twice the area between the concentration curve and the line of equality (the 45-degree line). So, in case there is no socioeconomic-related inequality, the concentration index is zero. The convention is that the index takes a negative value when the curve lies above the line of equality, indicating disproportionate concentration of the variable among the poor, and a positive value when it lies below the line of equality.

Formally, the concentration index is defined as

$$C = 1 - 2 \int_0^1 L_h(p)\, dp \qquad (1)$$

The index is bounded between -1 and 1. For discrete living standard variable, it can be written as

$$C = 2/N\ \mu \sum_{i=1}^{n} s_i\, r_i \quad 1 - 1/N \qquad (2)$$

Where s_i is the service variable, μ is its mean and $r_i = i/N$ is the fractional rank of the individual i in the living standard distribution with i=1 for the poorest and i=N for the richest[27].

The concentration index summarizes information from the concentration curve and can do so only through the imposition of value judgments about the weight given to inequality at different points in the distribution. Inevitably, the concentration index loses some information that is contained in the concentration curve.

Source: ECA 2008b

[27] For large N, the final term in equation (2) approaches zero and it is often omitted.

Annex 4. Construction of the DHS Wealth Index

There are several steps to the construction of the DHS wealth index: determination of indicator variables, dichotomization, calculation of indicator weights and the index value, and calculation of distribution cut points.

Indicator Variables
The selection of indicator variables is relatively straight forward. Almost all household assets and utility services have to be included, including country-specific items. Generally, any item that will reflect the economic status is used. Two additional items are constructed for most surveys: whether there is a domestic servant and whether the household owns agriculture land.

Construction of the index
There are various ways to assign weighting to the indicator variables. Ad hoc weights, such as assign "1" for a bicycle, "3" for a motorcycle, and "5" for a car or truck, work to a certain extent, but they are arbitrary with regard to the researcher and are difficult to assign when the wealth ordering is not readily appearing. For this reason, Filmer and Prichett recommended using principal component analysis (PCA) to assign the indicator weights, the procedure that is used for the DHS wealth index. DHS uses the SPSS factor analysis procedure. This procedure first standardizes the indicator variables (calculating z scores); then the factor coefficient scores (factor loadings) are being calculated; and finally, for each household, the indicator values are multiplied by the loadings and summed up to produce the household's index value. In this process, only the first of the factors produced is used to represent the wealth index. The resulting sum is itself a standardized score with a mean of zero and a standard deviation of one.

Construction of Quintiles
For tabular analysis with the DHS wealth index, quintiles are used instead of other percentiles as a compromise between limiting the number of categories to be tabulated and adequately representing the relationship between wealth and the phenomenon of interest. The cut points in the wealth index at which to form the quintiles are calculated by obtaining a weighted frequency distribution of households, the weight being the product of the number of de jure members of the household. Thus, the distribution represents the national household population, where each member is given the wealth index score of his or her household. The persons are then ordered by the score, and the distribution is divided at the points that form the 20 percent sections. Then the household score is recoded into the quintile variable so that each member of a household also receives that household's quintile category.

Source: Rutsein and Johnson 2000

Annex 5. SPSS Algorithm

Annex 6. Water and Sanitation Coverage Estimates

Annex 7. Criteria for Identification of LDCs

In its latest triennial review of the list of LDCs in 2006, the Committee for Development Policy used the following three criteria for the identification of the Least Developed Countries:

- A low-income criterion, based on a three-year average estimate of the gross national income per capita (under $745 for inclusion, above $900 for graduation);

- A human capital status criterion, involving a composite Human Assets Index based on indicators of: i) nutrition: percentage of population undernourished; ii) health: mortality rate for children aged five years or below; iii) education: the gross secondary school enrolment ratio; and iv) adult literacy rate; and

- An economic vulnerability criterion, involving a composite Economic Vulnerability Index based on indicators of: i) population size; ii) remoteness; iii) merchandise export concentration; iv) share of agriculture, forestry and fisheries in gross domestic product; v) homelessness owing to natural disasters; vi) instability of agricultural production; and vii) instability of exports of goods and services.

To be added to the list, a country must satisfy all three criteria. In addition, since the fundamental meaning of the LDCs category, i.e. the recognition of structural handicaps, excludes large economies, the population must not exceed 75 millions. To become eligible for graduation, a country must reach threshold levels for graduation for at least two of the aforementioned three criteria, or its gross national income per capita must exceed at least twice the threshold level, and the likelihood that the level of gross national income per capita is sustainable must be deemed high.

With regard to the 2006 triennial review of the list, the Committee for Development Policy recommended that Papua New Guinea be included in, and Samoa be graduated from, the list of LDCs. Equatorial Guinea, Kiribati, Tuvalu and Vanuatu were found eligible for graduation for the first time by the Committee. The General Assembly decided in its recent resolutions (59/209, 59/210 and 60/33) on the graduation of Cape Verde at the end of 2007 and Maldives in January 2011.

Source: UN-OHRLLS, October 2009

Annex 8: Declaration of honor

I declare herewith that the masterthesis entitled *"Equal Access to Basic Services in African LDCs: The need for coherent, inclusive and effective Policy Frameworks"* is my own unaided work. All sources I have used or quoted have been indicated and acknowledged by means of complete references in the text.

Addis Ababa, Ethiopia

December 2009