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UNIVERSITY OF CAPE TOWN



DEPARTMENT OF POLITICAL STUDIES

**THE RELATIONSHIP BETWEEN DECENTRALIZATION AND POVERTY
REDUCTION IN RWANDA**

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A minor dissertation submitted in *partial fulfillment* of the requirements for the award of the degree of Master of Social Science in Democratic Governance

Faculty of the Humanities

University of Cape Town

2010

DECLARATION

Can Decentralization Contribute to Poverty Reduction? Some Insights from Rwanda

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2010

COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature:

Signed by candidate

Date: 01 February 2010

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LIST OF ABBREVIATIONS

| | |
|------------------|---|
| EICV | Enquête intégrale sur les conditions de vie des ménages |
| MINALOC | Ministry of Local Government, Good Governance, Community Development and Social Affairs |
| NISR | National Institute of Statistics of Rwanda |
| MINICOM | Ministry of Commerce and Tourism |
| RCA | Rwanda Cooperative Agencies |
| CDF | Common Development Fund |
| EDPRS | Economic Development and Poverty Reduction Strategy |
| SAP | Structural Adjustment Programme |
| UN-OHRLLS | United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States |
| UNDP | United Nations Development Programmes |
| CDC | Community Development Committee |
| REVECAP | Revenue per Capita |
| BACC | Baccalauréat |
| IMF | International Monetary Funds |
| ICT | Information Communication Technology |
| HIV/AIDS | Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome |
| PRSP | Poverty Reduction Strategy Paper |
| MINECOFIN | Ministry of Finance and Economic planning |
| MINEDUC | Ministry of Education |
| MOH | Ministry of Health |

ABSTRACT

Establishing clear goals for a sustainable framework of good governance and development based on increasing equality and citizen participation has been the main concern of the government of Rwanda since the 1994 genocide. This was to be achieved by implementing decentralization based on the principle of participation and empowerment of local communities through the provision of mechanisms which encourage and motivate local citizen to initiate and implement development activities based on local needs.

One particular interesting initiative has been the design of new institutional arrangements for decentralization of political, fiscal and administrative institutions for the purpose of good governance and, in particular, for poverty reduction. To attain this, strategic objectives were implemented, these included:

- Enabling and reactivating local people to participate in initiating, making, implementing and monitoring decisions and plans that concern them taking into account their local needs.
- Strengthening accountability and transparency in Rwanda by making local leaders directly accountable to the communities they serve.
- Enhance the sensitivity and responsiveness of public administration to the local environment by placing the planning, financing, management and control of service provision at the point where services are provided.
- Enhancing effectiveness and efficiency in the planning, monitoring and delivery of services by reducing the burden from central government officials who are distanced from the center where needs are felt and services delivered.
- Developing sustainable economic planning and management capacity at local levels that will serve as the driving engine for planning, mobilization and implementation of social, political and economic development to alleviate poverty.

The aim of this study is to explore the linkage between the implantation of decentralization and poverty reduction. The implementation of the policy of decentralization for the purpose of poverty reduction in Rwanda has seen mixed results. Those districts that have gone further in

terms of administrative, political and fiscal decentralization have managed to reduce poverty. On the other hand other aspects of decentralization have had little or no measurable impact.

The test of the hypothesis revealed that:

- The level of voter turnout as an indication of political decentralization is related weakly and negatively to poverty levels. This test also revealed that the relationship between the level of voter turnout and a change in poverty level is moderately strong and negative in rural districts.
- The number of cooperatives in districts is correlated moderately strongly and negatively with subsequent changes in poverty.
- The district government income and expenditure per capita are very strongly related to subsequent levels in poverty change.
- The level of education of district staff is moderately weak and positive, mostly in the urban districts.
- Expenditure per capita on education, health, water and roads correlate very weakly with change in poverty.

CHAPTER 1: INTRODUCTION

1.1. Introduction

Establishing clear goals for a sustainable framework of good governance by increasing citizen equality and participation in the country's development has been the main concern of the Government of Rwanda since the 1994 genocide. The desire to attain these goals led the Government of Rwanda to undertake a number of political, administrative and economic reforms (Ndahimana et al, 2002:7). The government's intention was expressed firstly in the Rwanda Vision 2020 document, then in the Poverty Reduction Strategy Paper and, most recently, in the Economic Development and Poverty Reduction Strategy (EDPRS) document. One particularly interesting initiative has been the design of new institutional arrangements for decentralization of political, fiscal and administrative institutions for the purpose of good governance and, in particular, for poverty reduction (see Ndahimana et al, 2002; Republic of Rwanda, 2000:7). In the years since these reforms began, there has been in fact a measurable reduction in the extent of poverty in Rwanda. This study asks whether this is simply coincidence or whether there is any evidence that decentralization actually contributed to this drop in poverty.

1.2. Problem statement

The policy of decentralization¹ was formulated and adopted in May 2000 to 'ensure political, economic, social, managerial/administrative and technical empowerment of local populations

¹ The policy of decentralization was adopted in May 2000 after broad consultation with different stakeholders through meetings held in 1996-1998 and again in 1998-1999. It was designed to be implemented in three phases. At the moment, the

to fight poverty by participating in planning and management of their development process' (Republic of Rwanda, 2000:9). In Rwanda, decentralization is based on the principle of participation and empowerment of local communities through the provision of mechanisms which encourage and motivate local citizens to initiate and implement development activities based on local needs. Participation by local actors in decision-making and policy making motivates local governments to consider local problems and increases effectiveness and efficiency in service delivery and responsiveness of officials to community needs. The policy attempts to empower citizens and encourage maximum participation of local communities in decision making. Increased participation leading to more accountability, transparency, and responsiveness from local institutions is likely to bring about better policies that fit local needs and which are thus more likely to reduce poverty (Ndahimana et al, 2002; Republic of Rwanda, 2000).

Decentralization is thought by the Government of Rwanda to enhance participation, accountability, and responsiveness by enabling local citizens to elect their leaders² (in elections for district, sector, cell and Village councils), by granting those leaders more autonomy (political and financial autonomy), by giving technical capabilities to local institutions to improve their responsiveness, and by mobilizing resources at the local level. Decentralization entails making local governments the driving force for planning, mobilization and implementation of social, political and economic development programmes. The policy has also introduced the principle

country is in the middle of the second phase of implementation and among the issues to be addressed is the improvement of local people's lives by initiating development at the grassroots level (Republic of Rwanda. 2000. National Decentralization Policy. Minaloc. Kigali.

² First elections of local leaders after the genocide were organized in March 2001.

of shared responsibility between governors and the governed in the form of participatory decision-making (Ndahimana et al., 2002:7; Republic of Rwanda, 2000).

Though Rwanda is a landlocked country, with an agriculturally based economy (about 80% of the population aged 16 and above are occupied in agriculture), and insufficient natural resources, it has recently registered positive results in poverty reduction. According to the first EICV Survey (Enquête Intégrale sur les Conditions de Vie des Ménage) conducted in 2000/2001, the percentage of the population considered poor was estimated at 60.4%. However, this figure significantly declined to 56.9% as shown in the second EICV conducted in 2005/2006 (National Institute of Statistics of Rwanda (NISR), 2006:2). However, there were important variations across the country. In rural areas poverty declined from 66.1% in 2000/2001 to 62.5% in 2005/2006. In urban areas poverty levels were also reduced, for example from 16.1% to 13% in Kigali city and from 46.5% to 41.5% in other urban areas for the same periods. The highest reduction score was observed in the Eastern Province and Northern Province where poverty headcounts decreased from 61.1% to 50.4% and from 66.9% to 62.7% respectively (NISR, 2006: 4-6).

1.3. Research question

Given the recent reforms, the obvious question becomes whether the implementation of decentralization contributed to the observed reduction of poverty in any tangible way. Has decentralization had significant success in obtaining the poverty reduction objectives stated in the decentralization policy?

1.4. Significance of the study

Following the catastrophic experiences of Rwanda in 1994, most research on Rwanda has focused on the genocide and its consequences³. While some has focused on either poverty⁴ or decentralization in Rwanda, no research has specifically focused on the link between decentralization and poverty⁵. If this study finds evidence of a link, Rwanda could provide a model for other developing and African countries in this regard.

1.5. Argument

I argue that the participation of local citizens and their knowledge of the local situation contribute to more accurate identification and prioritization of human needs. This results in a more rational allocation of available resources for the attainment of poverty reduction objectives. Decentralized local and district governments are the institutional arrangement which provides these opportunities for people, including the poor and vulnerable. Planning approaches involving local people and based on knowledge of local circumstances create an enabling environment for local communities to participate in development decisions and activities. In this context decentralization is more likely to reduce poverty. The Government of Rwanda has, since 2002, designed various programmes and strategies setting poverty reduction as the most pressing objective. Programmes such as the government's Poverty Reduction

³ See for example Adelman and Suhrke.1999. Ed.; Mamdani, 2001 ; Pottier, 2002 ; Smith, 1999.

⁴ MINECOFIN-DS. 2002. *Enquête sur les Conditions de Vie des Ménages (EICV):Rapport Général*. Kigali; Service National de Recensement.2005. *Situation De Bien-Etre Du Ménage. Essai de mesure à partir des caractéristiques de l'habitat issue du troisième recensement général de la population et de l'habitat*. Kigali. MINECOFIN-DS. 2000. *Enquête sur les indicateurs de développement (QUID)*. Kigali. MINECOFIN-DS.2003. *Enquête sur les indicateurs de bien-être de base (QUIBB)*. Vol 1. Kigali. MINECOFIN. 2002. *Un Profil de la Pauvreté au Rwanda : Un rapport basé sur les résultats de l'EICV 1999-2001*. Kigali.

⁵ Poverty reduction is one of the five objectives to be achieved through decentralization. The decentralization policy has assigned to decentralized local governments the role of combating poverty in their respective areas of authority.

Strategy and the Economic Development and Poverty Reduction Strategy (EDPRS) were adopted in 2000 and 2006 respectively. In both programmes, decentralization of governing institutions and good governance are emphasized as essential tools for development. Local governments are key actors in the implementation of these policies.

Hypothesis

As has been argued by Braun and Grote (2000), lower levels of poverty are likely to be observed in countries where elections are held at the “third tier” level that is, at district level compared to countries where elections are only held at the central level of government.

In the context of this study, I hypothesize that ***implementation of the policy of decentralization of institutions of government is linked to increased poverty reduction in Rwanda.*** However, at the national level Rwanda provides us with only a single case to study, which presents all the attendant problems of single case studies. Thus, I disaggregate the country into 30 newly decentralized units. I argue that those districts in which the government has decentralized responsibilities are those that will have reduced poverty more extensively.

Concepts

The key concepts in this study are decentralization and poverty. Various definitions of decentralization emerge from the literature. However for this study decentralization is defined as a transfer of responsibility from the centre to the sub-national bodies within a political system. Decentralization can appear as de-concentration or administrative decentralization (when there is the dispersal of agents of the higher levels of government to a lower level), fiscal

decentralization (when fiscal responsibilities are transferred to a lower level of government enabling local influences over budgeting and financial decisions) and devolution or democratic decentralization (when there is a transfer of power and resources to lower levels of government which are largely or wholly independent of central government and democratic in some way and to some degree)⁶. Although all three of these forms of decentralization can be implemented separately or in combination, the type of decentralization at the center of our analysis is devolution of power for the purpose of providing autonomy in political and resource management to local government. Thus decentralization in this study means devolution or democratic decentralization. These three terms will be used interchangeably. Thus, devolution can be defined as “meaningful autonomy devolved to local units of government that are accessible and accountable to the local citizenry, who enjoy political rights and liberty. It thus differs from the vast majority of earlier efforts at decentralization in developing areas, which extend back as far as 1950, but which were largely initiatives concerned with public administration, without any serious democratic component”(Blair, 2000:21; quoted in Johnson, 2001:523). This definition implies that local governments are granted autonomy in planning and managing public affairs at local level with an extensive involvement of local citizens.

Poverty is comprised of many components and can be defined differently according to the dimensions to be analyzed. While there is widespread consensus on the multidimensionality of poverty⁷, the present study does not intend to focus on all dimensions because of the limited

⁶ See Manor.1999.

⁷ The multidimensional aspect of poverty was adopted by the World Summit on Development held in Copenhagen in March 1995. According to this definition, poverty entails lack of income and sufficient productive resources to insure viable livelihood; hunger and malnutrition; poor health, illiteracy; increased morbidity and mortality; unhealthy environment; social discrimination and exclusion. Thus poverty results from economic, political and social phenomena which interact and lead to

availability of data at local level. For the purpose of this study, poverty is defined as subsistence below the minimum requirements of food basket commodities in terms of income or consumption. This definition is based on consumption expenditure and defines poverty using a poverty line. Therefore, in this study individuals are defined as poor if their income is below an established poverty line and does not allow them access to basic food commodities sufficient to provide 2,500Kcal per adult and to meet their basic non-food necessities. For Rwanda the poverty line is set to Rwf 64,000 based on January 2001 prices to ensure comparability of the two surveys⁸.

Logic

In this study, the policy of decentralization is held constant: local governments in the country were created at the same time with identical organizational structures. What varies in this research is the *level of implementation* of the actual responsibilities of local governments and the *degree of institutionalization* of the policy. The study intends to investigate whether the implementation of decentralization has contributed to poverty reduction in Rwanda. This exploration of the relationship between decentralization and poverty reduction will proceed as follows:

Firstly, the relationship between the implementation of decentralization and poverty reduction is analyzed by investigating the level of population participation in local governments. Here

the destitution in which the poor live. For more details see: Banque Mondiale. 2001. *Combattre la Pauvreté, Rapport sur le Développement dans le Monde*. 2000/2001. Paris : ESKA. P.1. Mohammed, Sharif. *Poverty Reduction- An Effective Means of Population Control: theory, Evidence and Policy*. MPG Books Ltd, Bodmin, Cornwall. p.141.

⁸ For more details see, National Institute of Statistics of Rwanda. December 2006 (annexes1 and 2). See also David Hulme, Karen Moore and Andrew Shepherd, November 2001.

much attention will be given to discovering if the level of poverty reduction is associated with the degree of participation of local people.

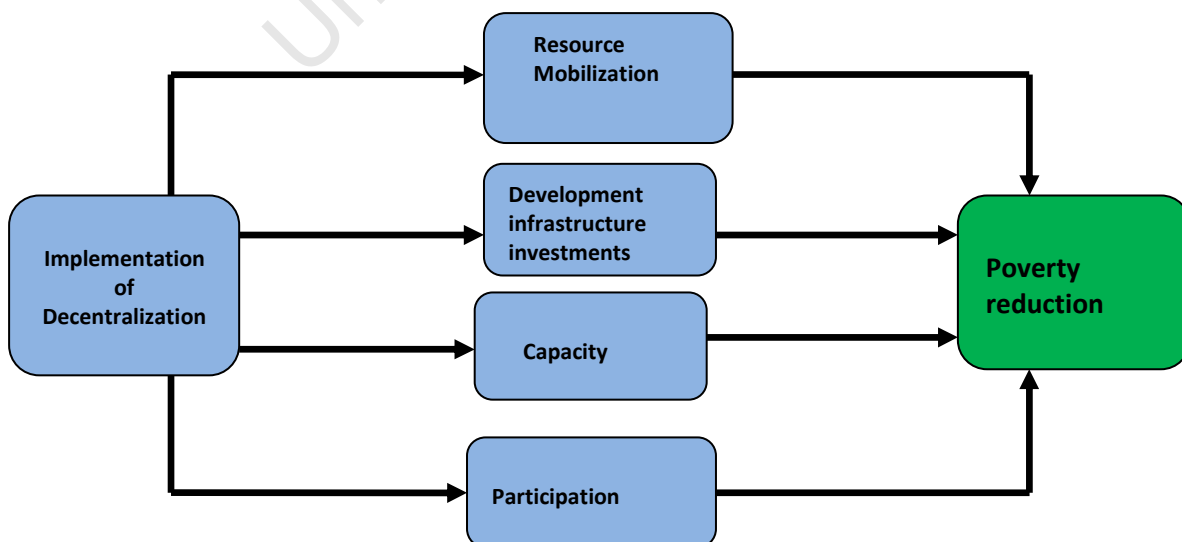
Secondly, the impact of decentralization on poverty reduction is examined by investigating the level of responsiveness of local government. An exploration of the level of development investments in education, health, roads and water was used to assist an investigation of the impact of decentralization on poverty reduction.

Thirdly, the capacity of decentralized units is examined with regard to their capability with regard to planning and running their local government affairs.

Fourthly, an investigation of the capacity for resource mobilization will provide information regarding the capacity of local governments to undertake and implement programmes aiming at reducing poverty.

Considering decentralization as the independent variable this study explores empirically how the implementation of decentralization policies has affected strategies for poverty reduction and the lives of local citizens.

Figure 1: Analytical framework model



1.6. Outlines of the study

This study is organized as follows: Chapter One covers the research question, hypothesis and objectives of the study. Chapter Two covers the literature on the subject and Chapter Three presents the methodology used. Chapter Four investigates the topic of decentralization in detail. Chapter Five examines poverty reduction in Rwanda and Chapter Six tests the linkage between decentralization and poverty reduction in the country. Chapter Seven offers the conclusion on the findings of the study.

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CHAPTER 2. LITERATURE REVIEW

2.1. Introduction

Understanding the causes of poverty and how to reduce it has been a major concern of developing countries. For many years, poverty reduction has attracted the attention of both governments and international development agencies. This literature review introduces and broadly discusses theories of the causes of poverty and approaches to poverty reduction. It then discusses decentralization and its intended contribution to poverty reduction.

2.2. Concepts of poverty and decentralization

2.2.1. Poverty

2.2.1.1. Definition

The concept of poverty has been controversial among academics and politicians. Poverty is characterized by not having enough income to satisfy basic needs and limiting the future of affected individuals by depriving them of the necessary tools for a better livelihood. Debates about poverty illuminate the absence of consensus on the definition of poverty. Some scholars have defined poverty in economic terms and argue that poverty is insufficient income for people to participate in the life of the society (National Research council, 1995:2) and to fulfill basic needs such as food, shelter, water and clothing (Hulme, Moore and Shepherd, 2001:6). Others such as Sen (1985), and World Bank (1990 and 2000) and United Nations development Programme (UNDP) (1990) recognize the relative importance of income but add to the definition the inability of an individual to access education and health services, their limited capability to obtain basic needs and low level of opportunities (voicelessness, powerlessness, vulnerability) for better well-being. It is in the same vein that Sen, quoted in Hulme et al.

(2001:8) notes that “relative deprivation in terms of incomes can yield absolute deprivation in terms of capabilities”.

In this view, two types of poverty can be distinguished. ‘Absolute poverty’ refers to the inability to satisfy minimum needs with regard to physical efficiency of a person (not enough food and poor health) (Deaton in Banerjee et al. Ed. 2006; Bonfiglioli, 2003), while ‘relative poverty’ implies the inability of an individual to actively participate in society (Deaton in Banerjee et al. Ed. 2006). This view has also led to a distinction between structural poverty or intergeneration poverty (i.e. the time spent in a poverty situation) and transitional poverty, which is a temporary situation affecting peoples’ ability to satisfy their needs (Hulme et al. 2001 and Bonfiglioli, 2003:13).

Finding a suitable definition of poverty has dominated debates among economists, politicians and many others. Most of the definitions of poverty in the literature have been based on objective material evidence and have not taken into account the subjective perceptions of the poor. Being set by those who are not poor, these “objective” definitions of poverty are insufficient in that they do not consider the experiences of the poor. Those who may be considered as poor by the objective criteria may not accept being considered as poor although they would not refuse to take advantage of policies for poverty reduction. As argued by Alcock (1997:9), ignoring the “experiences of the poor people is likely to paint only a partial picture of the problem”.

From the above discussion it is clear that the definition of poverty is determined by what is identified to be its cause. There is no consensus on the definition of, and what constitutes poverty, however most of scholars and politicians agree on defining poverty as a deprivation or

shortage of material, social and psychological goods (Alcock, 1997; Hulme et al. 2001). Divergent views on the definition of poverty elucidate how the concept of poverty has evolved over time and how actions have been identified to respond to the problem of poverty. As is discussed in the next section, discussions among politicians and academics have consisted of the identification of the problem of poverty with the aim of finding a common action to fight against poverty.

2.2.1.2. Evolution of the concept of poverty

The concept of poverty has engendered controversial debate among scholars and policy makers. Though discussions of poverty are abundant in literature, there has never been consensus on the meaning of the concept. From the inception of these debates, poverty was related to low income. Nowadays the concept of poverty covers a broader number of aspects ranging from low income to denial of access to opportunities to satisfy basic needs. This means that poverty comprises a number of aspects ranging from not having “enough income to ensure being adequately fed, clothed or sheltered (income poverty) or being unhealthy (health poverty) as well as being denied access to education, political participation, or a full role in society” (Deaton in Banerjee et al. Ed. 2006). Poverty is also therefore said to be about power, voice and vulnerability. From this point of view, allocating each dimension of poverty a single and unique measurement tool can be justified. With particular attention paid to the various dimensions of poverty, one can distinguish income poverty from general or human poverty. It is in this vein that the World Bank’s definition of poverty in the 1990s has evolved from considering poverty as low income to including aspects such as access to education, health and nutrition and in the 2000s aspects related to capabilities which include voiceless, vulnerability

and powerlessness (Bonfiglioli, 2003). The shift from one meaning of poverty to another or adding more elements to its definition have led to the conclusion that poverty is not a *descriptive* but rather a *prescriptive* concept. Therefore, poverty is a political concept. Thus the understanding of poverty will reflect the actions expected to alleviate it. Poverty reduction is a rationale for policy action and changing views of poverty result from the policies formulated to address it (Alcock, 1997). It is nowadays accepted that, despite the importance of income in understanding poverty, poverty can be described as multidimensional (World Bank, 2000). This multi-dimensional view of poverty has permitted the inclusion of a range of deprivations as part of poverty definitions, such as voicelessness and powerlessness (Hulme et al. 2001). However the multi-dimensional definition of poverty raises some difficulties in measuring and comparing the different dimensions (Hulme et al. 2001 and World Bank, 2000).

Given this concept of poverty, it is necessary to develop strategies that aim to improve the livelihood of people by increasing income, removing any constraints that may impede people's productivity, and by offering the means for them to actively participate in different activities of society. This is only guaranteed when there are good institutions available in the country to support these strategies. It is in this context that the role of decentralization should be acknowledged.

2.2.1.3. Dimensions of poverty

If poverty has for many years been associated with low income and material deprivation, it is nowadays been identified as a multidimensional concept. Poverty is today understood not only in terms of low income or material deprivation but the concept includes other factors that are essential for an individual to get out of poverty. The evolution of the definition of poverty has

led to identification of different dimensions of poverty. These dimensions include income poverty and capabilities poverty (health and education, vulnerability, and voicelessness and powerlessness) which interact and reinforce each other. The World Bank (2001:15-20), in its *World Development Report 2000/2001* identifies the following dimension of poverty:

- *Income poverty*: this is a traditional way of identifying the poor. It is based on household income and expenditure using survey data as a source of information most of the time. It is a way of analyzing poverty quantitatively and provides a broad understanding of well-being. The poor are determined by setting up a poverty line based on a cut-off line in income or consumption.
- *Health and education*: this dimension is used to refer to deprivation in health or education. It is widely accepted that productivity is associated with education and health. This is indicated by Deaton (2006) who argues that living in unsanitary environments and denied the opportunity to go to school constitute barriers to participate in activities which are open to healthy and literate people.
- *Vulnerability*: this dimension refers to the fact that people are exposed to other factors that constitute a risk of falling into poverty. It is the risk households or individuals have of experiencing a problem of income or health poverty over time. Factors such as exposure to violence, crime and natural disasters and dropping out of school are more likely to deepen poverty.
- *Voicelessness and powerlessness*: this dimension refers to the lack of opportunities offered to enable local communities (in particular those who have been denied access for diverse

reasons such as gender differences, religion, minority status, ethnic origin) to participate actively in society's activities.

2.2.1.4. Causes of poverty

Interest in poverty reduction resulted in the identification of the causes of poverty and approaches to act in relation to it. Any approach to poverty reduction and its measurement is determined by the nature of causes of poverty. However, there is no consensus with regard to the interpretation of differences in income and standards of living between poor and rich countries and this has led to the identification of different causes of poverty. Literature on the causes of poverty is abundant and researchers have discussed them in a variety of manners. Causes of poverty are many and vary according to definitions of poverty. They also vary from country to country and region to region. However there are commonly agreed causes and they are discussed as follows:

Geographic causes: these causes are related to the geographic position of a given country or region. A geographic dimension affecting prosperity and productivity is climate and relief. Climate can influence the presence of diseases which impact negatively on productivity. Geography can also determine the type of technology which is likely to be developed in a given region (Acemoglu, Johnson, and Robinson in Banerjee et al. Ed. 2006).

Pathological causes: pathological causes are those related to the indolence and fecklessness of individuals, to genetic explanations such as those related to intelligence, and to explanation of individual achievements by reference to personality development (psychological). Poor parenting, low aspirations and disadvantaged family environment are root causes of poverty. Poverty is a product of individual weaknesses (Alcock, 1997).

Structural causes: Structural causes are those engendered by social changes. The changes in national and international economic forces can be a cause of poverty. Thus causes of poverty can originate from the socioeconomic structure existing in a given country. Social changes are therefore those which occur in political, institutional, family and community contexts. Poverty is a product of the interaction of these (Alcock, 1997). Among others these include:

Institutional causes: These causes are considered by Acemoglu and others (2006) as the most fundamental causes of poverty. They have argued that the type of institutions inherited and shaped by colonialism explain the differences between rich and poor countries. In their research, they found that two types of institutions were inherited by the colonies: enabling institutions and extractive institutions. Countries that have inherited extractive institutions are those in which poverty prevails and at higher rate because these institutions do not guarantee the stability of the political and economic lives of the population. They do not put constraints upon the power of the elite in order to insure the development of better laws and institutions for the good of the society. Extractive institutions were established in countries where Europeans couldn't settle because of diseases or high density of population. (Acemoglu, Johnson and Robinson in Banerjee et al. Ed. 2006). These countries are characterized by corruption and poor governance performance which hinder economic activities and result in increasing poverty (Saitoti, 2002, p. 71). These countries continue to suffer from the legacy of these institutions which developed during the colonial period. However in some other countries where Europeans settled in large numbers they developed institutions that put constraints upon the elite and to ensure the creation of good institutions (Acemoglu, Johnson and

Robinson, 2006). These institutions enhanced and facilitated development rather than being extractive as institutions have been in most developing countries.

Macroeconomic stability: Instability in a country's macroeconomic environment has a significant impact on the poor. Discussing the causes of poverty in Africa, Saitoti (2002) argues that long periods of macroeconomic instability, unmanageable public debt, hyperinflation, unemployment, volatile exchange rates, negative GDP growth and volatile interest result in low economic growth which impact negatively on development (Saitoti, 2002, p. 72). This instability affects the poor who are already suffering from their deprived situation. Any efforts made by the poor to get out of poverty are hindered by macroeconomic instability.

Structural Adjustment Programme (SAP): the SAP is one of the external forces that affected social change in many developing countries. Although some of these countries have managed to benefit from the SAP, for many of them the cuts in expenditure, particularly on social welfare programmes have increased poverty. The SAP has been criticized by many scholars as having contributed to the deepening poverty and deteriorating of social services in countries participating in the programme. It is therefore regarded as one of the causes of poverty (Pedersen, Gibbon, Raikes, and Udsholt, 1996; Saitoti, 2002).

Inequalities: enormous and pervasive inequalities in accessing the means of production and political, economic and social goods, and gender based discrimination are also cited as contributing to pervasive poverty and retarding industrialization (Banerjee, Benabou, and Mookherjee, 2006; Saitoti, 2002).

Lack of technology: the inability to access needed technology for the exploitation of resources, and especially in agriculture is a major barrier to poverty reduction. As indicated by Saitoti (2002), this is caused by the persistence of dysfunctional institutions that not only did not support research to improve production methods but have hampered foreign investment flows. This state of affairs continues to perpetuate poverty among developing nations where the majority of the population is rural and agrarian.

Population: most developing countries are characterized by a high population growth and low GDP. Households are bigger compared to those of developed countries. Having to care for a large number of children with limited resources may lead a family into deeper poverty (Saitoti, 2002; Banerjee, Benabou, and Mookherjee, 2006).

Civil and ethnic conflicts: civil and ethnic conflicts are also a cause of poverty. Civil and ethnic conflicts result not only in displacement of people from their properties but also result in the destruction of infrastructure and the disruption of economic activities (Saitoti, 2002). In a highly fragmented society it is difficult for the governments to get support from communities. It is difficult to undertake development projects in a turbulent environment (Miguel, Banerjee et al. Ed. 2006).

Ideological perspectives: identified causes of poverty can be related to ideological differences prevailing in a country. For countries where neoliberal ideas predominate, poverty is seen as a result of the intervention of the state in the economy. State intervention in assisting the poor encourages dependence and undermines the self-sufficiency of individuals. For conservatives and social democrats, poverty is caused by the market but they differ on the required level of

state intervention needed in the economy. While conservatives seek minimal intervention, social democrats seek to interfere in the market. For revolutionary socialists poverty is the result of a punitive labour market resulting from capitalism (Alcock, 1997).

2.2.2. Decentralization

2.2.2.1. Definition

Definitions of decentralization abound in the literature. It is defined, explained and interpreted with reference to the aspects of decentralization being studied. The wide variety of institutional arrangements and institutional reforms that decentralization encompasses makes it difficult to reach a consensual definition. For some scholars this implies autonomy in decision making, while for others it refers to democratic practices and territorial distribution of power; and for others it means bringing service closer to the local people. In general, decentralization refers to the transfer of power from the central government to local entities. This definition implies that decentralization is a complex process which can have various meanings according to the mode of power transfer, the nature of power transferred and the mode of appointment of local authorities. Therefore decentralization can have various forms. It can be administrative, political, fiscal or even economic and each of these forms can be studied separately. To quote the classical definition of Burki et al. (Burki et al, 1999 quoted in Sharma, 2006:53), decentralization may be defined as “the extent to which power is held by autonomous elected sub national governments capable of taking binding decisions in at least some policy areas”. In this definition only an entity with elected leaders invested with the authority of decision-making will be considered as decentralized.

According to Turner and Hulme , decentralization is “a transfer of authority to perform services to the public from an individual or an agency in the central government to some other individual or agency which is ‘closer’ to the public to be served”, (1997:152). This definition focuses mainly on service delivery; the central government accepts the transfer of some of its authority to deliver public services and goods to the public. The aspect of electing is missing and the decision-making autonomy is not clear and undefined.

To Rodinelli (1981) decentralization should be understood as the process by which the authority to plan, make decisions and manage public functions is transferred from a higher level of the government to any individual, organization or agency at local level. While to Smith (1985: 1), decentralization is “reversing the concentration of the administration at a single center and conferring powers on local government”.

From these definitions it can be concluded that decentralization *is a transfer of power (political, managerial and legal), a transfer of capacities (financial, logistical and human resources) from the central government to local government and the people in order to insure rational management of available resources at local level and provide better service delivery to local people.*

2.2.2.2. Forms of decentralization

Scholars, organizations and policymakers discuss decentralization differently depending on the objectives and functions to be assigned to decentralized units. The fact that there is no consensus about the definition of decentralization shows how multifaceted the concept is and how it can appear in different forms. Cohen and Peterson (1999) have identified six approaches to decentralization (namely historical, hierarchal and functional, problem and value centered,

service delivery, objective based and single country based approach). Likewise Triesman (2000) have identified five types of political decentralization: structural decentralization, decision decentralization, resource decentralization, electoral decentralization and institutional decentralization.

Rodinelli and Nellis and Rondinelli and Cheema (1983) have identified four forms of decentralization: deconcentration, devolution, delegation and privatization. These forms are the forms of decentralization most often used. I focus on these in the next subsection.

2.2.2.2.1. Deconcentration

This form of decentralization refers to a dispersion of some administrative responsibilities from a central government service to a level nearer to the people but without a transfer of authority to lower levels of government. Local level service providers execute instructions from the center, they do not allow any authority to make decisions or exercise discretion in executing their responsibilities. This form of decentralization does not give decision making power either to service providers or to recipients, all decisions are taken at the central level.

2.2.2.2.2. Delegation

Delegation is a form of decentralization through which the central government decides to transfer some of its authority to local government or semi-autonomous organizations with administrative and technical capabilities to carry out delegated powers. This occurs when the central government is overloaded with work, or when there is an increase in the importance and urgency of services. It may therefore be defined as, to quote Rondinelli and Cheema (1983:21), "the transfer or creation of broad authority to plan and implement decisions

concerning specific activities - or a variety of activities within spatial boundaries - to an organization that is technically and administratively capable of carrying them out without direct supervision by a bigger administrative unit”, (21).

2.2.2.2.3. Devolution

Devolution refers to a situation in which central government transfers authority for decision making, finance and management to autonomous entities at local level. Decentralized units hold political and managerial power and are legally mandated to manage their territories. In this form of decentralization the central government has a limited control over local governments and the latter are invested with power to manage resources and have reciprocal interactions within local structures and with other government units. This form of decentralization is thought assist people to have confidence in their leaders and have a feeling of ownership with regard to decisions made.

2.2.2.2.4. Privatization

Privatization is a form of decentralization in which public functions and institutions are transferred to private organizations, companies or firms. This occurs when the government has inability to deliver specific services because of managerial problems. In such cases the government decides to give the services to independent organizations which include the private sector (local or international firms or companies), civil society or voluntary organizations.

2.2.2.2.5. Fiscal decentralization

Fiscal decentralization refers to a situation in which the central government transfers fiscal responsibilities to lower levels of government in order to influence budgetary and financial decisions.

Each form of decentralization can be observed at least somewhere and each has particular implication in terms of impacting on both the effective responsiveness and the lives of local people and in particular on poverty. The form which is more likely to yield more positive outcomes in terms of responsiveness and livelihood is devolution (political decentralization). Devolution has the advantage of not only granting political and managerial autonomy but also granting the financial means to allow local governments to pursue and achieve their task. However, beyond positive technical feasibility and theoretical expectations the success of devolution is based on the political will from the centre which exists to allow decentralized units to execute their duties effectively.

2.3. Approaches to poverty reduction

2.3.1. Non institutional approach

Poverty reduction and economic growth

Since the 1950s, the incidence of poverty reduction has been measured by taking into account the economic growth rate. In the 1980s and 1990s, the rate of economic growth became a powerful tool to measure poverty reduction across countries, particularly with regard to the measurement of income poverty (World Bank, 2001). Economic growth determined by an increase in average income and consumption has been long associated with poverty reduction. It was assumed that an increase in average income would imply a decrease in poverty. In this

context, the level of poverty reduction would depend on the increased level of economic growth. However, the impact of economic growth depends on how income is distributed among the population (Deaton in Banerjee et al. Ed. 2006) and the size of the current economy. If the assumption regarding the influence of economic growth on poverty reduction were true, then all countries with similar economic growth rates would have similar poverty reduction rates. Unfortunately, various results across countries have been observed (World Bank, 2000). To understand these differences it is necessary to consider the environment and opportunities that have been driving growth. As is argued by Deaton (2006), when growth generates increased opportunities such as access to schools and health, this is more likely to benefit the majority of the people, but when growth occurs in a society which denies some people opportunities to participate in these activities, growth is more likely to benefit the group of people who have access to opportunities. In the same vein, the World Bank (2001:52) makes the point that “differences in inequality at a given rate of growth could reflect the fact that the combination of policies and institutions that led to this growth differed across countries”.

These assumptions about economic growth and poverty have been criticized by many scholars. The major and common critique is that economic growth supporters do not consider factors which drive growth (World Bank, 2001). Nelson (2005:1) states that economic growth simplifies reality and it ignores “a wide range of other institutions that have played key roles, like universities and public laboratories, scientific and other professional associations and government agencies and programmes”. From this point of view, economic growth is nowadays considered inadequate in measuring the level of poverty reduction because poverty is not only

low income, but is also about capabilities (Deaton in Banerjee et al. Ed. 2006, World Bank, 2001, Saitoti, 2002).

Until the late 1960s, modernization⁹ was a dominating dynamic of poverty reduction programs in most developing countries. It was thought that development and poverty reduction in these countries would occur and accelerate only if they industrialized, urbanized, and broadened access to education and access to the mass media. These would transform the structure of societies from rural to industrial, from agricultural production to heavy manufacturing, from work on farms to employment in factories and from peasants to workers (see Inglehart, 1997; Dube, 1988; Bill and Hardgrave, 1981; Inglehart and Baker, 2000: 19-22; Norris, 2002:20-25; Kuhnen, 1986-1987:1; Wignaraja and Sirivardana, 2004:51; Engberg-Pedersen et al., 1996:5). The principal role was to be played by the government through state investment in physical capital and infrastructure (Bonfiglioli, 2003, p. 14).

However, the persistence of poverty led to a criticism of modernization and, in the 1960s its assumptions were rejected by dependency theorists¹⁰. They argued that poverty reduction in

⁹ Modernization theory assumed that the development enjoyed by Western countries would occur in the same manner in the developing world. Modernization scholars argued that development is normative and though all people are not equal they are however ruled by the same economic rules and have followed the same historical path. They believed there are steps for success, a development pattern to be considered for any country to become prosperous and develop a modern economy which in turn will enrich the lives of the country's citizens. (See the works of the master of the theory Walt W. Rostow, *The process of Economic Growth* (1952) and, *The Stages of Economic Growth* (1960). High levels of industrialization, urbanization, education and communication were thought to imply social and political advancement. Developing countries embraced this approach before and after independence. Their primary concern was to transform their societies from predominantly rural societies into urban societies and change agricultural economies into industrial and technology economies, with the assistance of Western Countries. This was thought to increase a country's Gross Domestic Product (GDP), which in turn would increase wealth and reduce poverty. Modernization theorists assume that poverty eradication and good governance are independent from each other. Development and poverty reduction were conceived and explained exclusively in economic terms, based on deterministic models. This theory inspired many political economists in explaining political development.

¹⁰ Dependency theory was advocated in the 1950s by the former Director of the United Nations' Economic Commission for Latin America, Raul Prebisch and his colleagues who were troubled by the fact that economic growth in industrialized countries coincided with a decrease in wealth in developing countries. Dependency theorists rejected the modernization argument, arguing that the backwardness and stagnation of the third world was due to their position as dependent entities in the world trading system and as an outcome unequal development occurred within regions. The theory held that poor countries would never be able to address the problem of poverty because they export raw material at low prices and import manufactured products at high prices. This dependency status was seen as preventing developing countries from benefitting from their own

developing nations was hindered by the terms of international trade and investment, whereby resources flow from a periphery of poor countries to a core of wealthy countries, with little positive outcomes for peripheral countries. They suggested that to help developing countries end their dependency it was necessary to restructure international term of trade (see Raffer, 1987; Tausch, 2003; Dos Santos, 1971; A.G. Frank, 1972).

Other social scientists (see for example Lewis, 1969: 190-192) went beyond economic explanations, and emphasized the impact of culture on poverty. Cultural sociologists attempted to show that poverty and inequality are outcomes of cultural factors. They used cultural factors to explain how poor individuals deal with their circumstances of poverty. Poverty was explained by them with regard to endogenous factors, but cultural values and behavior emerging from poverty situations was seen to result in what Lewis called a “culture of poverty”. The culture of poverty¹¹ theory held that poverty is perpetuated by cultural values and behavior and not only by economic conditions. A culture of poverty was seen as characterized by strong feelings of marginalization, helplessness, dependency, and the belief that the interests of the poor are not taken into account by existing institutions. People living in a culture of poverty were thought to develop an inferiority complex and feelings of personal unworthiness and they were thought to have little sense of history. They were seen as only having knowledge of their own troubles,

resources and labour. The peripheral position hold by developing nations in the international division of labor was seen to perpetuate poverty in these nations. This relationship of dependency was seen to advantage political elites in the periphery while deepening the poverty of their citizens and is seen as capitalist imperialism.

¹¹ The culture of poverty can be shaped and sustained by neighborhoods (Small, 2004 and Harding, 2005), by cultural practices, beliefs and attitudes (Swidler, 1986; Wilson, 1996; Lamont, 1992), stories or narratives (Bertaux, 1984; Somers, 1994, Abelmann, 2003; Ewick and Sibey, 2003; Young, 2004), by symbolic boundaries and identities (Lamont, 2000); Lamont and Therenot ,2000; Gallie and Paugham, 2000; Katz, 1989; Silver, 1993), by high status cultural signals (Lamont and Small, 2006) and by institutional channels (Hall and Taylor, 1996; Meyer and Rowan, 1991). Payne (2005:47) differentiates generational poverty, which implies a situation in which people have been in poverty for at least two generations, from situational poverty which she defines as a lack of resources due to a particular event. The theory of a culture of poverty was criticized by many scholars who argued that the use of a culture of poverty explanation is simply a way of portraying the poor (Eleanor Burke Leacock. Ed. 1971).

local conditions, their own neighborhood and their own way of life. They were assumed to live and believe in their own world (see Lewis, 1969; Payne, 2005; Lamont and Small, 2006). The culture of poverty was seen as the root cause of what Payne called the “cycle of poverty”. Poverty and underdevelopment were seen as persistent in most developing countries, particularly in Africa, as a result of traditional and cultural factors (Welch, in Spiro. Ed., 1967:80-89). Putnam (1993), comparing the Northern and Southern regions of Italy, noted that cultural values could be incentives or disincentives to economic and institutional performance. He concluded that differences in economic performance between the two regions could be explained by different cultural values.

2.3.2. Institutional approach

The persistence of poverty in many developing countries has recently convinced scholars to investigate the role and importance of institutions in the process of development and poverty reduction. Institutions¹² are defined as a set of rules that shape and structure human interactions, whether political, social or economic, in a society (North, 1990:3). The institutional approach is that poverty reduction policies based on economic growth are not sufficient to influence poverty reduction because they are themselves shaped by social, political and institutional processes. These theorists see institutions as important because they improve economic performance, they are enabling entities, they create the environment in which the various actors in society operate, they reduce cost and risk transactions, they encourage (create a safeguard for) investments, they enhance equal redistribution and transfer of resources, provide public goods where the market has failed and they sustain social stability (see North,

¹² Institutions can be formal or informal. In the context of this study, institutions refer to political institutions, particularly political institutions which influence economic institutions.

1990; Bates in Harris et al. Ed., 1995; Toyé in Harris et al. Ed 1995,:61-64; Jonhston in L. Wohlgemuth, J. Carlsson, and H. Kifle. Ed., 1998; Tomlinson, in Harris et al. Ed., 1995; Nelson, 2005; Khan, in Harris et al. Ed. 1995; Fukuyama, 2007 in Dinello and Popov. Ed., 21-24; Putnam, 1993; Soskice et al., 1992; Dinello and Popov. Ed., 2007:3-15; Bates, 2006; Dzorgbo, 2001:308).

Institutions can support the effectiveness of decisions and the efficient use of available resources (Dinello and Popov. Ed., 2007:1). They can shape the behavior of individuals to ensure their participation in development (Jumbe and Angelsen, in Dinello and Popov. Ed., 2007: 171). Institutions can create or restrict political and economic opportunities and structure incentives in human exchanges, whether political, social or economic (North, 1990). By determining the distribution of opportunities and political power within the society, political institutions impact on the structure and performance of economic institutions. Therefore they can play a key role in development and poverty reduction.

The institutional approach considers that the poor quality and limited capacity of state institutions are the underlying causes of poverty in developing countries. North (1990:9) argued that poverty in developing countries is caused by the existence of institutional constraints which define a set of payoffs for political and economic activities that do not encourage productive activities. Developing countries, as argued by Israel (1987), lack the required institutions that have the ability to influence the effective use and rational allocation of available resources. Accordingly this approach maintains that differences in economic growth between societies should be studied by taking into consideration institutions prevailing within these societies (Labini, 2001:5). Discussing the failure of modernization in developing nations,

Dube (1988:25) also noted that the lack of an adequate institutional base has condemned modernization and poverty reduction strategies to failure in developing countries.

The role of state institutions in combating poverty is also highlighted in the 2000-2001 World Development Report. The report suggests that poverty is an outcome not only of economic processes but of interacting economic, social, and political forces. In particular, it is seen as an outcome of the accountability and responsiveness of state institutions (Skocpol, 1992; Bates, 1989; North, 1990; quoted by World Bank, 2001:99). Osmani (2003) notes that without an appropriate governance structure, developing countries will not be able to generate either sustainable economic growth or a momentum towards poverty reduction.

Thus, this theory maintains that the poor quality of institutions can hinder the implementation of development programmes. Institutional arrangements either increase or decrease productivity. For institutions to impact positively on development, institutional change is required. Institutional development can be achieved through institutional reform¹³. Decentralization emerges as a type of institutional reform that can insure that societies benefit from the political and economic opportunities embodied in state institutions. The recognition of the role of institutions in shaping development has convinced the governments of many developing countries to decentralize political, fiscal and administrative institutions.

Historically many developing countries in Africa, Asia and Latin America had highly centralized governments and leaders who undervalued the role and importance of local government in

¹³ Here reform refers to the way political power is redistributed within societies to ensure inclusiveness and equal access to opportunities for the improvement of wellbeing and poverty reduction. However, in most developing countries, and African countries in particular, reforms and particularly those suggested by Structural Adjustment Programmes have been difficult to implement because of the persistence of politics based on patrimonialism. For more detail see Goetz (2007), R. G. Rajan (2007) and UN-OHLLS & UNDP (2006) report on Governance and the Future: Democracy and Development in the Least Developed Countries.

national development. Newly independent states in Africa and Asia considered decentralization as a threat to national unity. By the late 1970s and 1980s, however, the recognition of the role and importance of local entities in development encouraged governments to decentralize.

In recent years many developing countries have attempted to decentralize institutions of governance (Fukasaku and de Mello, 1999; Manor, 1999; World Bank, 1999; Shah, 1998; Crook and Manor, 1998; Futardo, 2001). The poor results of centralized economic planning convinced these countries to turn to decentralization in order to limit central government and focus on broader participation in democratic governance (Olowu, 2000; UN-OHRLS and UNDP, 2006; Smoke, 1994; Wunsch and Olowu, 1990; Futardo, 2001). Being closer to and interacting with people, it was assumed that local authorities could more easily identify and prioritize people's needs, and thus apply more appropriate solutions to address them (Enemu, 2000; Rondinelli et al., 1989; Oates, 1972). Decentralized government structures enable participation of local communities not only in the management of local resources but also in decision-making and support collaboration between public agencies and local communities (Johnson, 2001).

It was also argued that local communities would more readily pay taxes to local governments and the contributed amounts could be more directly related to services received through decentralized government structures (Livingstone and Charlton, 1998; Westergaard and Alam, 1995). By bringing public services closer to people decentralization was also said to enhance accountability and reduce the amount of discretion available to bureaucrats, and thus contribute to transparent governance (Quentin L. Quade, 1993: 186-187; Bardhan and Mookherjee, 1998 quoted by Von Braun and Grote, 2000:8; World Bank, 2001; Tótomeyer;

1999:187; Ashley and Maxwell, 2001; World Bank 2000; UN-OHLLS and UNDP, 2006). By enhancing participation, decentralization supports the creativity, awareness and efficiency of poor and marginalized groups whose input is necessary for poverty reduction (Wignaraja and Sirivardana, 2004). Rural development scholars believe as well that decentralization could reduce political and economic imbalances between rural and urban areas (Tótomeyer, 1999:187; Parker, 1995; Ashley and Maxwell, 2001:418). Decentralization was also seen as supporting the transfer of skills to decentralized entities (Parker, 1995). It allows broad consensus and support for policies from all interest groups (Sopchokchai, 2003).

However, many scholars have argued that there is no clear positive link between poverty reduction and decentralization¹⁴, but suggest that decentralization remains a means to poverty reduction, not an end in itself for development problems (Bossuyt and Gould, 2000:8; Von Baun and Grote, 2000:2, Dethier 2004:23). Decentralization can affect poverty directly (when it relates to regionally targeted transfers) or indirectly (as a means of promoting efficiency in public services) (Von Baun and Grote, 2000:2). Evidence from India, the Philippines, Nepal, Sri-Lanka, Thailand, China and Bolivia show that decentralization has made local government more accountable to the people and improved the livelihoods of local citizens, in particular those living in rural areas¹⁵. Considering this, one would expect to see the implementation of the decentralization policy in Rwanda yielding positive results in poverty reduction.

¹⁴ The poor link between decentralization and poverty reduction is in part explained by the fact that a government policy statement does not emphasize a link between decentralization and poverty reduction via strategies of empowerment and resource mobilization. It is further explained by the fact that in most countries national decentralization policies do not provide local government with the mandate to effectively combat poverty (for details see Bossuyt & Gould. October 2000).

¹⁵ For example, in India the Bhoomi program, the BATF (Bangalore Agenda Task Force) and DWRCA (Development of Women and Children in Rural Areas) have led to greater service delivery, more participation in local decision-making by ordinary citizens

However, the positive impact of decentralization on poverty reduction depends not only on factors such as the political will of governments, the extent of autonomy and responsibilities devolved to local governments, the availability of resources, and capacity of decentralized governments to respond to exigencies of poverty reduction. Positive results also depend on the monitoring and inspection mechanisms and information systems available with regard to decentralized institutions (Von Braun and Grote; 2000, UN-DESA, 2003; Fukuyama, 2004; Futardo, 2001; Goetz, 2007: 419).

Though there is evidence with regard to the impact of decentralization on poverty reduction, decentralized entities in many African countries are still subordinated to central government¹⁶. As a result there has been little positive impact on poverty reduction because local governments are not empowered and both a centralized technocratic system and a system of local patronage have been created in the decentralization process. This impedes the participation of local people and their access to the benefits of decentralization, particularly those related to development (UN-OHRLS and UNDP, 2006:57-59) prevailing.

For decentralization to yield positive results, a transfer of resources is a prerequisite in addition to a transfer of political authority. Resources are indispensable for decentralized entities to fulfill their responsibilities at local level and in order for them to play a role in poverty reduction. The following chapter discusses the methodology used to assess the linkage between decentralization and poverty reduction in Rwanda.

and reduced corruption. Moreover in China and India decentralization has encouraged competition in reforming local governments in order to attract investment (see Manor, 2007; Goetz, 2007).

¹⁶ Uganda has been identified among others as an example where the subordination of decentralized entities prevails. See UN-OHRLS & UNDP. 2006.

CHAPTER 3. RESEARCH DESIGN AND METHODOLOGY

The period covered in this analysis is 2001 to 2006, corresponding to the period when Rwanda's decentralization policy was implemented. In this research, data on poverty collected before the period 2001 will be compared to those collected after the decentralization policies were implemented. If decentralization has reduced poverty, it should then be true that where decentralization was implemented most extensively, there should be greater poverty reduction. The unit of analysis is the district. To determine the impact of decentralization on poverty, this study will focus first on district income and expenditure per capita, the infrastructure (schools, health centers, water supply, and roads) built since 2001, and capabilities of the staff in each district. Secondly, the research will focus on participation of the population and local organizations in decision making processes and the execution of development programmes for poverty reduction.

3.1. Measurement

Poverty reduction also did not occur at the same level across the entire country: there was variation across provinces and districts. To test whether decentralization in Rwanda has actually reduced poverty, measurement will be based on district income data, citizen participation, resource mobilization, institutional capacity and development investment (infrastructures built from 2001 and 2006).

Dependent variable:

1. The poverty reduction level is measured by subtracting, for each district, the poverty incidence in 2000/2001 (EICV1) from that of 2005-2006 (EICV2). Poverty incidence is measured by consumption expenditure from EICV 2000/2001 and EICV2 2005/2006.

Independent variables:

2. Resource mobilization: the level of resource mobilization will be measured, for each district, by local tax income and funds received from the central government. This will allow the calculation of income per capita for each district. This is crucial for the study because limited financial capabilities can undermine local government responsiveness and thus have a negative impact on poverty reduction.
3. Participation: the level of participation will be measured by the voting turnout, in each district, in local elections and the number of cooperatives in each district.
4. Institutional capacity: institutional capacity will be measured by the competence of local staff (the percentage of key officials and percentage of officials with a university degree) in each district.
5. Development investment: development investment will be measured by comparing variations in development infrastructure built since 2001 and by comparing expenses on infrastructure projects (district expenditure per capita on education, health, water and roads).
6. Simple recovery from the 1994 holocaust: simple recovery will be measured using variables on the number of orphans and widows by district.

3.2. Data collection

To measure each of these variables, I have collected the following types of data:

1. To measure local government income, I have collected the financial report on income mobilized (taxes) and expenditure for each of the 30 districts.
2. To measure poverty change, I used the EICV 2000/2001 and EICV 2005/2006 surveys.
3. To measure participation: data on voter turnout, I have obtained from the National Electoral Commission and data on the number of cooperatives have been obtained from Rwanda Cooperative Agency (Ministry of commerce).
4. To measure the impact of infrastructure on poverty reduction, I have collected two types of data:
 - a) District expenditure per capita on education, health, water and roads, obtained from the district budget and CDF (Common Development Fund) data.
 - b) Availability of schools, clinics and difference in percentage of households with access to safe water are from EICV1 and EICV2
5. To measure the damage of genocide, I have obtained data on widows and orphans of the genocide from the 2007 survey undertaken by the National Institute of Statistics.

The next chapter discusses decentralization in Rwanda and presents data used to explore the linkage between decentralization and poverty reduction.

CHAPTER 4. DECENTRALIZATION IN RWANDA

4.1. Introduction

The adoption of a decentralization policy marked the commitment of the Government of Rwanda to deepening democratization by placing people at the center of the fight against poverty. This was coupled with the belief in the importance of effective governance institutions in influencing the development and wellbeing of citizens. This implies that the government of Rwanda has realized the important influence of institutions of governance over the political, economic and social future of Rwandan society. It is now widely accepted that good governance is a prerequisite for poverty reduction and development. It also implies that Rwandans are expecting not only to enjoy the potential benefits of decentralization but also will be able to participate and contribute to the implementation of poverty reduction programmes.

The new approach marked a sharp break with the belief in strong central government which had dominated the country throughout the colonial period and after independence. Two major reasons may have motivated central government to decentralize. Firstly, decentralization can be motivated by the need for improvement in the efficiency of service delivery. Here, the idea is that better knowledge of local conditions and situations would lead to the implementation of “policies and programs that reflect people’s real need and preference” (Jütting et al., 2004:8). This results in efficient allocation of scarce resources. Secondly, decentralization can be motivated by the need for improving governance. Decentralization is, in this context, seen as a tool for enabling accountability, eliminating patrimonialism by “creating institutional arrangements that formalize the relationship between citizens and public servants” (Jütting et

al., 2004:9). Thus, local governments in Rwanda have the mission of ensuring that democracy is fostered at local level, promoting socioeconomic development at local level and supporting the solidarity of local communities in their development efforts. This chapter discusses the Rwandan decentralization policy and its implementation. It also describes data on key variables that will be used in exploring the link between decentralization and poverty reduction in Rwanda.

4.2. Policy of decentralization

4.2.1. Overview of decentralization policy

After many years of central management of public affairs, Rwanda's center realized that the expected socioeconomic and political development had not taken place. The policy of decentralization emerged as an alternative to its inefficient and highly centralized system. The adoption of the policy of decentralization on 26 May 2000 marked a clear commitment of the Government of Rwanda to embark on the path of transforming society by devolving authority, autonomy and responsibilities to local communities. This was to be done by decentralizing management and reminding local people to take their destiny in their hands. The policy is based on the belief that fostering democratization at local level is a means to overcome the country's political, economic and social crisis and, initiating the development.

If current laws on decentralization in Rwanda have marked an important step towards devolution, these laws are however not the first of their kind. For example in 1962, the colonial government organized and created decentralized local entities, named "*communes*". The major difference in the current policy is the introduction of a democratic decision making process

“whereby the appointee chiefs and leaders are replaced by democratically elected representatives (Ndahimana et al, 2002:9)”. This ensures that local communities have a say in choosing their leaders. Another aspect that has been brought in is the principal of “shared responsibility” between leaders and local communities. This is implying a greater involvement of local communities in the management of the district and other entities at local level.

After the 1994 genocide, the then Government of the National Unity engaged in the process of setting up institutional arrangements to enable participation of all layers of the Rwandan nation in social, political and economic rebuilding and consolidating the development of the country. They held national and local level meetings to consult on governance issues, between May 1998 and March 1999. The broad national consultation resulted in the adoption of the National Decentralization Policy on 26th May, 2000. Also, the choice of decentralization made by the Government of Rwanda aimed at materializing “the peoples’ exercise of power over their leaders at central and local levels” (Republic of Rwanda, 2000:8)¹⁷. The Government shared the same view with many scholars (Jütting, 2004, Braum and Groot, 2000, Maddick, 1963) and donors that democratic decentralization is a tool to enable local communities to engage in development activities to insure a sustainable development. This policy was actually implemented in March 2001, when the first district level elections were held. However, these elections were preceded by elections at cell and sector level held in 1999 (see Ndahimana et al, 2002:22, Republic of Rwanda, 2000). Its implementation was preceded by laws, regulations and guidelines to ensure better functioning of local governments. The Government of Rwanda

¹⁷ This principle was, at the time of the adoption of the decentralization policy, enacted in Title 1, article 6 of the 1991 Constitution of the Republic of Rwanda, and it has been reiterated in Chapter1, article 2 of the current constitution approved by referendum in 2003.

adopted decentralization as a system of governance that would allow the country to engage all people in the process of combating poverty.

4.2.2. Objectives of decentralization in Rwanda

The decentralization policy aimed to ensure “political, economic, social, managerial and technical empowerment of local communities to fight poverty by participating in planning and management of their development” (see Republic of Rwanda: 2000). To attain this, strategic objectives were set out as follows:

- Enable and reactivate local people to participate in initiating, making, implementing and monitoring decisions and plans that concern them taking into consideration their local needs, priorities, capacities and resources from central to local government and lower levels.
- Strengthen accountability and transparency in Rwanda by making local leaders directly accountable to the communities they serve and by establishing a clear linkage between the taxes people pay and the services that are financed by these taxes.
- Enhance the sensitivity and responsiveness of public administration to the local environment by placing the planning, financing, management and control of service provision at the point where services are provided, and by enabling local leadership to develop organizational structures and capabilities that take into consideration the local environment and needs.
- Enhance effectiveness and efficiency in the planning, monitoring and delivery of services by reducing the burden from central government officials who are distanced from the center where needs are felt and services delivered.

- Develop sustainable economic planning and management capacity at local levels that will serve as the driving engine for planning, mobilization and implementation of social, political and economic development to alleviate poverty (Republic of Rwanda, 2000:9-10).

4.2.3. Implementation of the policy of decentralization

The adoption of decentralization policy, however does not guarantee that Rwanda actually has a decentralized system. To ensure that the will expressed in the policy is translated into action there should be active implementation¹⁸. To ensure the materialization of the decentralization policy, the following phases were taken:

The first phase refers to preparation, sensitization and consultation. The aim of this phase was to develop a sense of democratization, develop a culture of participation of the population including civil society and the private sector, reconciling and stabilizing the society and enhancing transparent and accountable management systems. To achieve this aim, seminars, field visits by the minister and staff, and study visits in other countries have been organized on one hand and at the same time an intensive sensitization consultation of the population has been carried out on the other hand. This phase started in 1997 and ended in 1999. In 1999, a specific ministry dedicated to local government was created with the special mandate of implementing the decentralization policy. This was the outcome of the first phase.

The second phase has been marked by the materialization of the recommendations of the first phase. Here, actions involving preparation, approval of a legal and regulatory framework,

¹⁸ This is the reason why Rwanda's decentralization policy is framed in four major policy documents: Decentralization policy (2000), Implementation Strategy for Decentralization Policy (2000), Fiscal and Financial Decentralization (2001) and Community Development Policy (2001).

staffing and organizing elections for the implementation of political and administrative decentralization were undertaken. Also, supporting institutions such as the National Transformation Steering Committee (NTSC) and Decentralization Management Unit (DMU), Rwandan Association of Local Government Authorities (RALGA) were created.

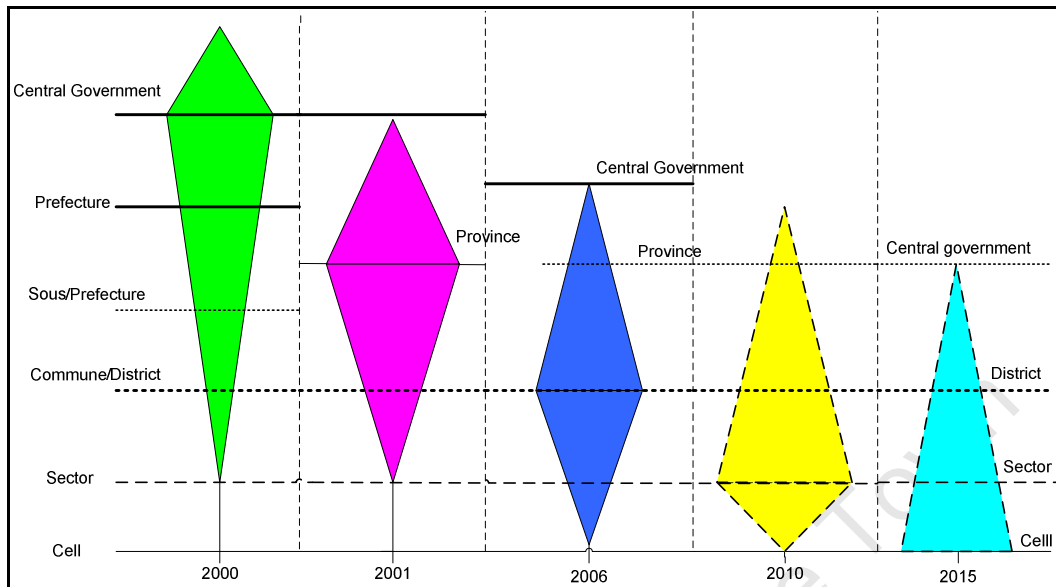
The third phase is associated with preparatory works in identifying means by which districts would mobilize resources and determine different financial sources for district development. At this level, the legal provisions for districts to levy and collect taxes are of great importance because districts need the financial means to carry out development programs and ensure better service delivery to local communities.

The fourth phase is related to service delivery and deconcentration of some ministry lines, which are routine activities for provinces in order to ensure that social services are closer to people.

The last phase is related to a more devolution of responsibilities to district and the consolidation of what has been achieved in the previous phases. (see Bonfiglioli, 2003:20; Ndahimana et al, 2002).

Figure 2 below, depicts the implementation process of decentralization policy and distribution of decision making power between central and local government for the period from 2000 to 2015.

Figure 2: Rwanda’s decentralization implementation process



Source: MINALOC Minister’s presentation to the Cabinet on Administrative Reform, 7th Dec 2005

Figure 2 above displays how decentralization has increased the responsibility of local layers by relocating political and managerial powers from the center to local entities. The diamond is wide where more power of decision making is concentrated. In 2000 no powers were held by local government “layers” and all decisions were taken and implemented by central government. Between the central and local government there were also a number of layers. But since 2001, decentralization has responded to this challenge and more power has been devolved to local entities. As years pass by and as decentralization structures mature, more power is devolved to local government.

Aside from the devolution of power, implementation of decentralization has led to administrative reform. The implementation of decentralization is occurring on an incremental process. As the Figure 2 shows, in 2006 more political and managerial powers were concentrated at district level and these powers will be devolved to lower layers as years go on.

In order to meet responsibilities and resources for better service delivery, the number of government layers between local and central government has also been reduced. This allows the addition of unplanned elements and reduction of administrative layers to ensure that more power is devolved to levels closer to local communities. It is in this regard that for each phase of decentralization, territorial division has been undertaken and in particular with the aim of responding to the challenge of limited capacities in human and finance resources that are likely to impede the process. Table 1 below shows how territorial division has been done since the inception of the policy of decentralization. Prior to the implementation of decentralization, Rwanda had 12 prefectures, 22 sub-prefectures, 154 communes, 1544 sectors and 9104 cells. These were reduced to 5 provinces, 30 districts, 416 sectors and 2148 cells by 2006. The purpose of reducing the number of local entities was to enable an increase of financial capabilities and human resources at local government level.

Table 1: Territorial division layers

| Before 2001 | | | Between 2001 and 2005 | | | Since 2006 | | |
|----------------|---------------------|--------|--------------------------|---------------------|--------|--------------------------|------------------------|--------|
| Entities | Chief administrator | Number | Entities | Chief administrator | Number | Entities | Chief administrator | Number |
| Prefecture | Prefet | 12 | Province/ Kigali City | Prefet | 12 | Province/ Kigali City | Governor/ Mayor | 5 |
| Sub-Prefecture | Sub-Prefet | 22 | | | | | | |
| Commune | Burgomaster | 154 | District/ Town | Mayor | 106 | Districts | Mayor | 30 |
| Sector | Councilor | 1544 | Sector | Coordinator | 1550 | Sector | Executive secretary | 416 |
| Cell | Chief of cell | 9104 | Cell | Coordinator | 9219 | Cell | Coordinator | 2148 |

Source: Ndahimana et al, 2002 and UNDP, 2007.

Rwanda is divided into provinces, districts, sectors and cells (see table 1). In October 2006 another level was added, that is 'umudugudu' or village (14837).

The country is composed of 5 provinces which are the Northern Province, the Southern Province, the Western Province, the Eastern Province and the City of Kigali. Provinces are deconcentrated entities governed by a Governor appointed by the cabinet. The role of the province is to coordinate district activities and ensure that all activities at district level are executed in accordance with national policies. The City of Kigali has however a particular status which makes it a decentralized province and its leaders are not appointed but are rather elected. In Rwanda, provinces are not included in the category of local government. Each Province is subdivided into districts which are the local governments. (Republic of Rwanda, 2006: iii, 2; Republic of Rwanda, 2007:9).

4.2.4. Competences of local government

In Rwanda, local governments have the competence to deliver services to local communities, through coordinating and implement development programs which take into account the wishes of their local communities. They also have the competence to maintain existing infrastructure in their areas. For a better success in caring out devolved responsibilities, the combination of administrative, political and fiscal decentralization is envisaged by the Government of Rwanda. These three forms of decentralization are discussed in the subsections below.

4.2.4.1. Administrative decentralization

To ensure that decentralized entities operate well, the Government of Rwanda clearly defined the role of the central government and that of decentralized entities (provinces as deconcentrated entities and districts as fully decentralized entities). The role of the Central

government has been limited to formulation of national policies about education, national security, foreign policy, international trade, industrial licensing, money, banking and national finance, prevention and control of natural calamities, construction and maintenance of national infrastructure, national education and culture, conservation and environmental protection policy, national health policy, exploitation of natural resources policy (Republic of Rwanda, 2000). On the other hand, the role of local governments is to ensure that the participative process in local development is effective and operational as outlined in section 3.2.4 above.

Local government and decision-making autonomy: A certain degree of autonomy in decision making is needed in order to enhance local government authorities' ability to act and implement programmes for better satisfaction of the needs of local communities. The extent of their autonomy is determined by how responsibilities are distributed between the central government and the local governments. The autonomy informs how the process of decision making operates and the impact of local government on poverty reduction.

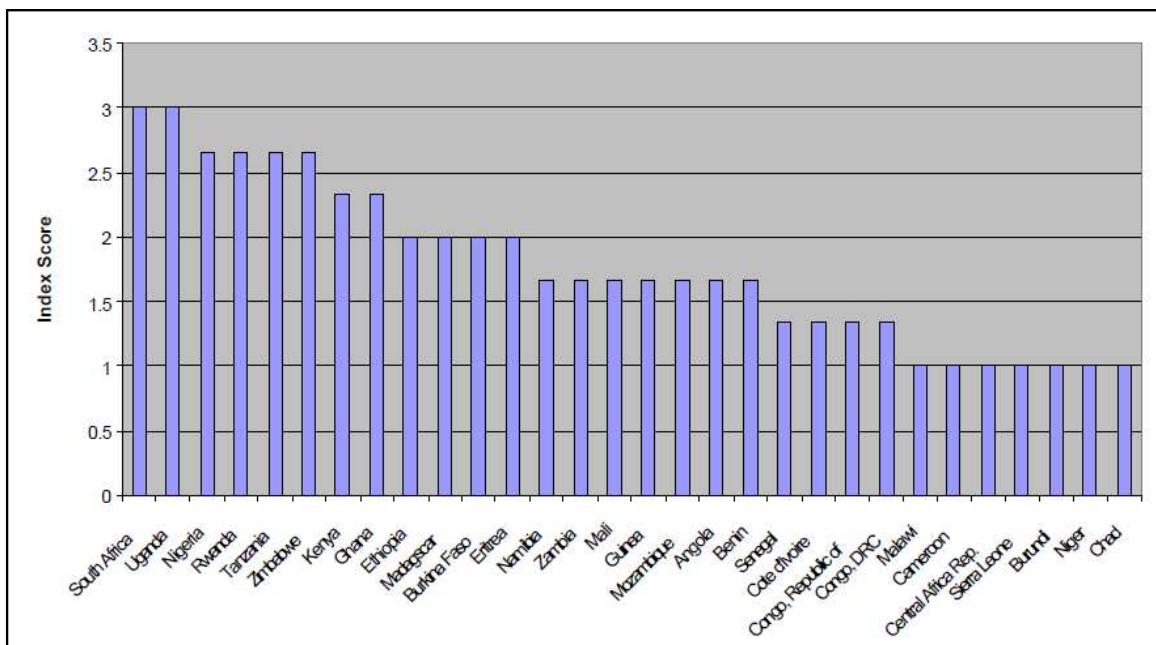
In Rwanda, local governments have autonomy in decision making, in particular those decisions related to development. Their decisions must be in coherence with the overall national policy and constitution. However, district council decisions are subject to prior approval of the provincial authority (Governor), who's requested to object to decision within seven working days. Failing to do so, the Executive Committee of the district will implement the decision¹⁹.

In Rwanda, decision making power at local government level is dispersed between three organs, namely: the District Council, the Executive Committee, and Security Committee.

¹⁹ See article 43 of law No 08/2006 of 24/02/2006 determining the organization and functioning of the district.

Comparing the rate of decentralization in Rwanda with that of other African countries, Rwanda is in the group of countries that has a score of between 2.5 and 3; the actual score for Rwanda BEING 2.7²⁰, where the highest score is 4. It comes after South Africa and Uganda and has the same score as Nigeria, Tanzania and Zimbabwe (see Figure 3 below).

Figure 3: Extent of administrative decentralization in Rwanda compared to 30 other African countries



Source: Ndegwa (2002:4).

The capacity of institutions to undertake their functions is a requirement for combating poverty. Sufficient management capabilities are required for local governments to attain the objective of reducing poverty in Rwanda. Here, the emphasis is on the human resources available in the administration of local government to fulfill their responsibilities.

²⁰ This score was calculated by considering three indicators: the clarity of roles for the central and local government as provided by law; location of the actual responsibility for service delivery and where the responsibility of the civil servant is located. The highest score is 4 for a country which score better on these aspects while zero is the lowest (see Ndegwa, 2002:4)

The major problems faced by local governments in management capabilities are related to limited capacity in human resources concerning both administrative and technical personnel. Various studies (Minaloc, 2004 and Ndahimana, 2002) have revealed that there is a shortage in human resources at district level in terms of both quality and quantity. This situation is explained by financial constraints (low salaries). Although the law allows districts to recruit, they have not been able to attract those who are well qualified. Another factor that has been an obstacle to district management capacity is the fact that many districts are rural and less attractive to qualified personnel. Most qualified people prefer to work in cities where they are exposed to variety of opportunities that are rare in rural areas. Thus, disparities in the availability of qualified personnel at district level are interconnected with differences in financial capabilities in the area in which the district is located.

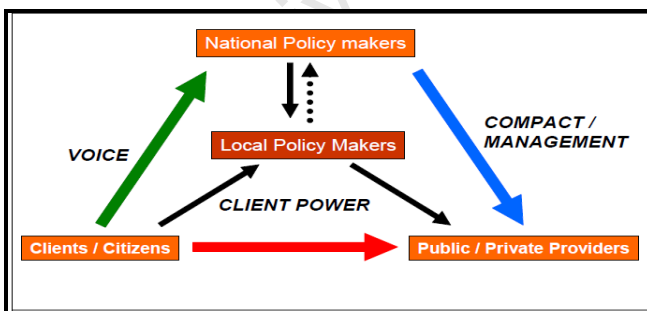
4.2.5.2. Political decentralization

In Rwanda, political decentralization was launched by organizing elections at local level. These elections do not involve political parties; only individuals are allowed to compete for positions. Elections allow people to sanction incumbents who did not perform well during their term and did not fulfill promises made during electoral campaigns. In 2002, compared to 30 African countries, political decentralization in Rwanda has a score of 2.5 as it is shown in the Figure 4 below²¹. This implies that political empowerment of local communities is occurring and participation of local communities would therefore increase. In Rwanda political

²¹ The score was constructed by considering the number of elected at sub-national tiers. The highest score being 4 for a country which had more levels of sub-national government elected and local elections were fair and free. The lowest score will be zero. For more details see Ndegwa (2002).

Rwanda, the principal of transparency in the management of public affairs at local level gives local communities the opportunity to be informed about what is being done by local government. For this purpose a 'public accountability day' is put in place to enable citizens to ask any question related to what is being done by central and local government and how public responsibilities are carried out. On this day, citizens are allowed to discuss and question their leaders on how they carry out their activities for a better understanding. This on one hand provides useful information that assists the making of sensitive decisions about authorities and on the other hand it helps those who receive requests to account for their activities and to practice a degree of self-regulation (Kigali City, 2008). Legal provision empowers local people to recall their elected leaders in cases where they do not deliver²². This can constitute a motivation for elected representatives to become more responsive. The Figure 5 below shows the accountability framework in Rwanda. As can be observed, citizens can influence accountability at both central and local level and of various actors involved in service delivery.

Figure 5: Decentralized accountability relationship framework



Source: Republic of Rwanda, (2006).

²² Though all possible means have been put in place to ensure the participation of local people, this is still far from being a reality due to the level of education of Rwandans. Local elites tend to capture all the power and the ruling party still has great influence on local governments. This impedes the quality of relationship between local governments and local communities.

Citizens may exercise their influence in different ways. Firstly they can raise their collective voice to influence policies in order to compel policy makers to reconsider some of their strategies or expenditure priorities by taking into consideration the aspirations and preferred needs. Secondly, they can influence service providers to improve the quality and quantity of services and the manner in which these public services are delivered. Thirdly, policy makers may hold service providers accountable. This can be influenced by the power of the citizen's voice and threat of recall and or reelection.

Although legal provision guarantees the availability of these means of holding local government officials accountable and responsible, this principle is impeded by the fact that the majority of the population is not educated and many documents are either written in French or English which many people are not able to read.

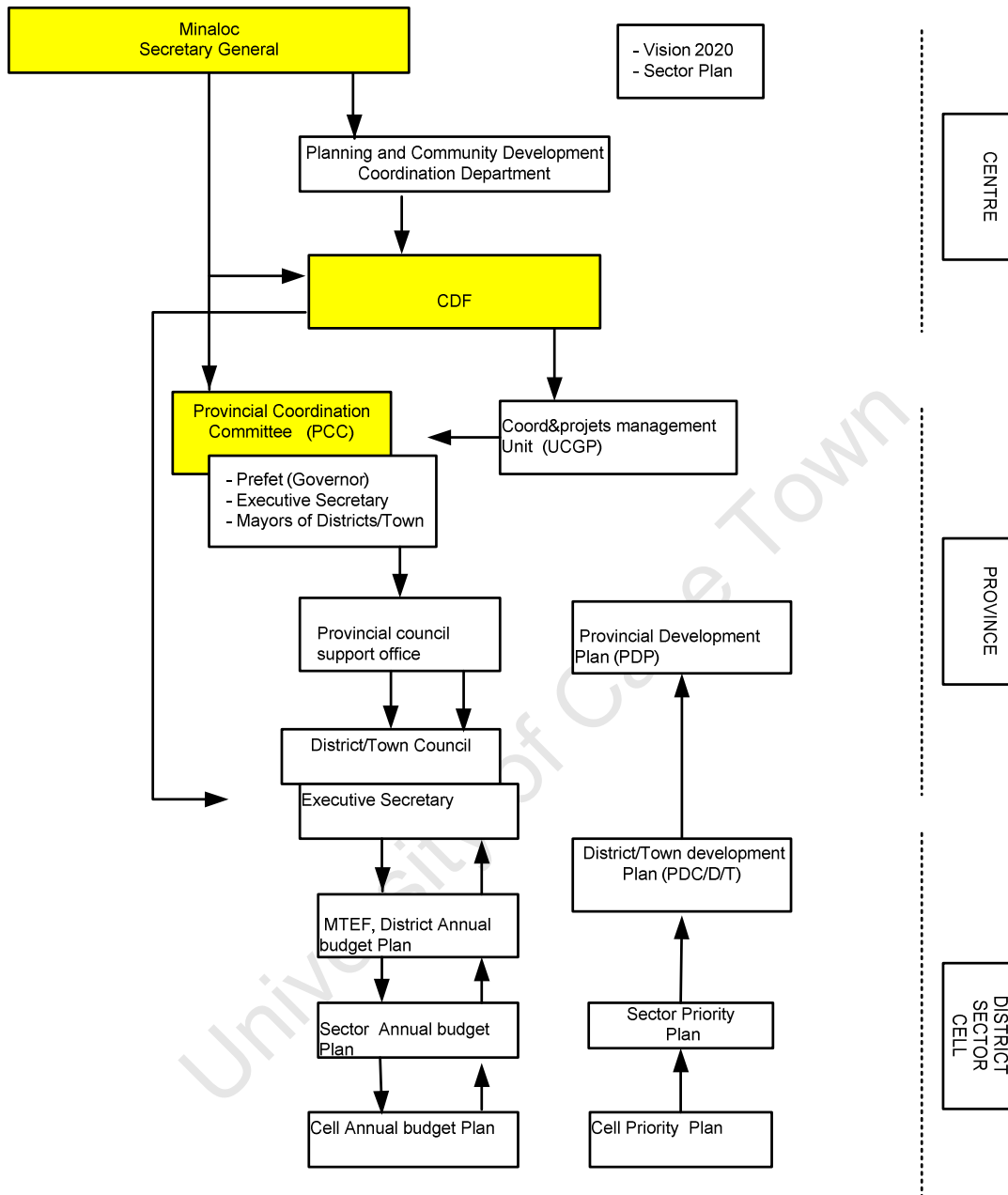
4.2.5.2.3. Participation of citizens in policy formulation and implementation

Though elections are the most common way of enabling participation of local communities in political and public affairs, the Rwandan government has added mechanisms to ensure effective participation of local communities in the formulation and implementation of development policies. Participation is enabled by the creation of the Community Development Committees (CDC) which has the role of leading the community planning process.

The administrative and political structure of local government rearrangement has enabled the participation of local people in the formulation and implementation of policies. Each layer of local government has responsibility for formulating its development plan. This task is exerted by

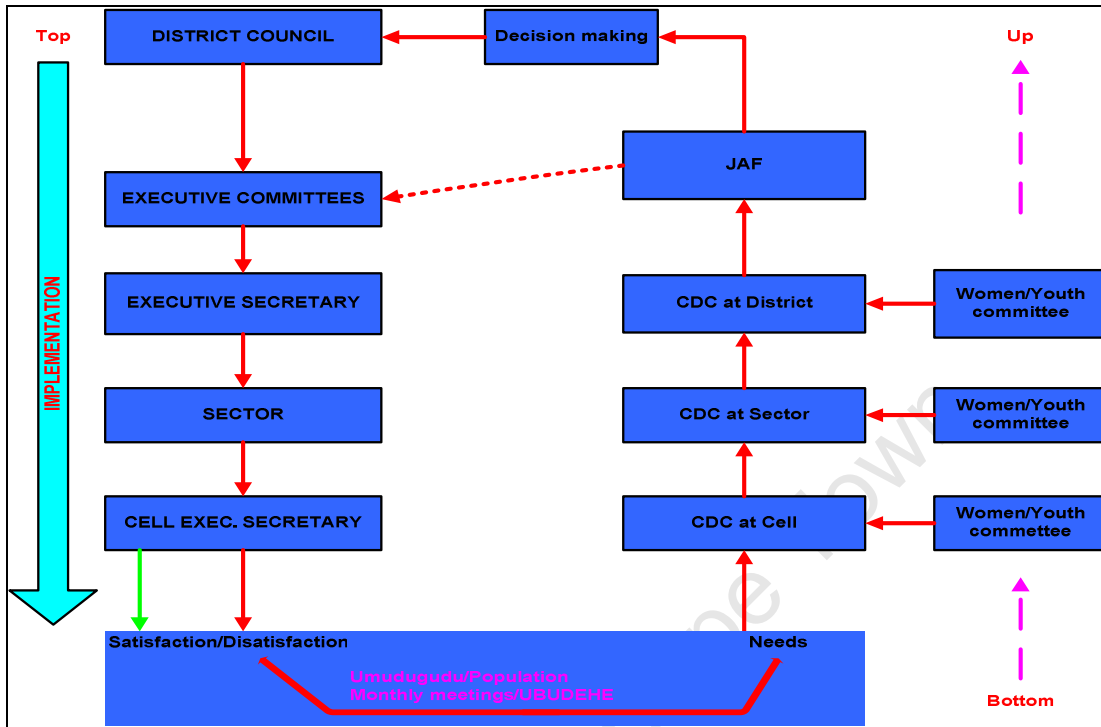
CDCs at cell level, sector level and district level. The process requires CDCs at cell level to prepare cell development plans by prioritizing local needs. It is at this level that local communities contribute significantly to influence development programmes in the district, because these plans should be approved by the Cell council (the *akagari* council). The *Akagari* council is composed of all individuals aged of 18 years and above who live in the *Akagari*. These plans are thereafter referred to CDCs at sector level which establish the priorities at sector level. The CDCs at district level use development plans from the CDCs at sector level to formulate districts development plans. The selection of the priorities at district level is done according to available funds. Figure 6 below shows how local and central level interacts in formulation and implementation of development policies through CDC. Figure 7 depicts interaction between local communities (at village level) and district authority.

Figure 6: Community development planning framework 2001-2005



Source: Bonfiglioli, 2003

Figure 7: District community development planning framework since 2006



Source: Minaloc

Frameworks in Figure 6 and 7 show that development planning according to Rwanda's decentralization policy is, in principal at least, bottom-up. This implies that local government should consider the needs of their communities while planning the economic development of the whole district.

The success of development programmes and policies and the sustainability of development depend on their degree of acceptance and ownership by local communities. The involvement of local people in the formulation of priorities is a way of insuring their participation at the implementation phase. In Rwanda, participation of local communities may imply sometimes participation in manual work (*Umuganda*). Each priority set at sector and cell level determines

the contribution of the population. It is in this respect that the “*Umuganda*” is a way of enabling people to participate in the execution of some development activities at local level. This is an activity based on tradition which is organized once a month. It gathers local communities to work on a project or an activity of community importance. These activities may include cleaning identified places, repairing bridges, roads, planting trees, etc. These activities are concluded by a meeting in which all residents discuss issues of common interest and evaluate the progress made so far in development. It should be noted that despite the institutionalization of the *Umuganda*, local governments do not utilize it efficiently.

Another form of participation by local communities in the implementation of policies is *Ubudehe*. Through this approach, local communities are enabled to participate in planning and budgeting at the cell and village level. As a result, depending on what communities have set as priorities, cells have been engaged in the realization of some development activities such as increasing access to water and poverty reduction oriented activities. The establishment of the *umuganda* and *ubudehe* shows recognition of the capabilities of local people to contribute to development by participating in identifying community needs and implementing what they have identified as their development priorities (Republic of Rwanda, 2006: 12).

Through *ubudehe* local communities have not only been able to participate in development but also local governments have been able to allocate their resources to developing infrastructures and pro-poor programmes. Actually, the *Ubudehe* is the most used way of combating poverty at local level by involving local communities in the identification of their most pressing needs. The *Ubudehe* plays an important role in combating poverty by promoting mutual assistance and

actions of common interest. This is done by initiating people and decentralized entities in participative planning and identifications of their priorities. It has also been a means of consolidating and reinforcing good governance and reconciliation among local people. Actions of *Ubudehe* are undertaken at cell level and are coordinated by the Districts. Identified priorities are financed and in each cell two poor families are identified for financial support for the project they wish to undertake in order to improve their well-being.

As it is showed in table A1 (Appendix A), through the support of the *Ubudehe* programme, various projects have been undertaken in different areas of the country. The same table displays the number of projects by Province. Animal husbandry is the most preferred project by local communities. The reason being that not only they beneficiate by selling the animal produce but also animal waste are used to fertilize their cultivated land. And for long animal has been a sign of better off and wealth and way of saving. Thus the possession of animal husbandry allows the household to cover school charges or any health care charges. Thus the serving of the peasant is proportional to the number of animal owned. Figure A1 (Appendix A) depicts fund disbursed to districts to finance projects identified by local communities compared to total expenditure 2001 to 2003 and 2006.

Except the district of Gisagara which does not appear on the Figure and in the table, meaning that it did not receive these transfers, all districts have received financial support for poverty reduction. Districts that have received little financial support are Huye, Nyanza, Kicukiro and Nyarugenge. These districts are either fully urban or semi-urban. This shows poverty disparity between rural and urban areas. Districts which have received more financial support for poverty reduction are rural or semi-urban but with a large rural area. Those districts which have

received more financial support compared to others are Gicumbi, Bugesera, Nyamagabe, Rulindo, Nyamasheke, Musanze, Muhanga, Rusizi and Karongi with an amount which is over 250 million Rwandan Francs. The rest have received an amount which is between 100 and 250 million Rwandan francs. An amount of FRW 700.000 is allocated to the cell to be distributed as a rotation loan to the identified poorest households in villages.

4.2.6.3. Fiscal decentralization

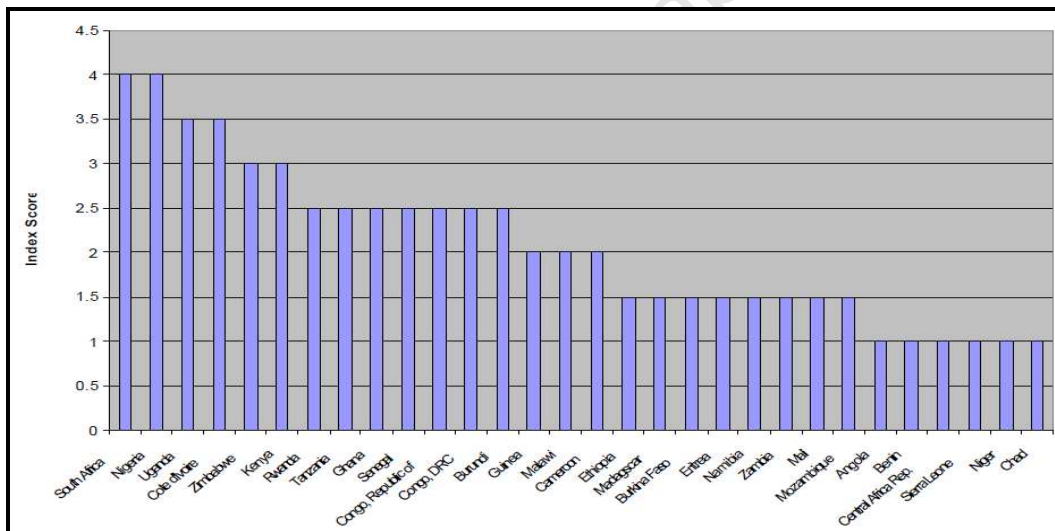
Fiscal decentralization provides decentralized entities with the necessary resources to undertake their functions. With regard to poverty reduction, local governments will only be successful if they possess resources that allow them implement development programs and ensure greater service delivery. The policy has defined the tax basis of districts and has determined how districts will benefit from transfers from central government (Republic of Rwanda, 2006). Efficiency in management and resource mobilization is crucial for attaining real sustainable development. Since 2001, when decentralization was materialized by elections, the Government of Rwanda has put in place the legal framework to reinforce the implementation of decentralization in general and of fiscal decentralization in particular.

Since decentralization has occurred the sources of financing for local governments have varied and increased. There are two major sources of financial resources: fiscal resources and non fiscal resources. District's fiscal resources are composed of business licenses, rental income tax, property tax and fees. Whereas non fiscal resources are constituted by government transfers, grants from donors and bank loans. Government transfers constitute 5% of domestic revenue, (Block transfers or unconditional transfers for recurrent expenditure) and funds from CDF (The

Common Development Fund) which is 10% of domestic revenue, and any other donor funding, (earmarked or conditional transfer for capital expenditure). The Block or earmarked grants are aimed at covering budget obligations or administrative functions while the un-earmarked are granted to district to finance service delivery (Republic of Rwanda, 2005:12).

In a comparison with other African countries, Rwanda appears in the same group as Ghana, Tanzania, Senegal, Congo Brazzaville, DRC and Burundi with a score between 2 and 2.5²³ (see the Figure 8 below). Rwanda has scored lower on fiscal decentralization compared to other components of decentralization, for example political and administrative decentralization.

Figure 8: Extent of fiscal decentralization in Rwanda compared to 30 other African countries



Source: Ndegwa (2002:3).

²³ This score is obtained by using two indicators: the arrangement for fiscal transfers from central government to local entities and the proportion of public expenditure controlled by local governments. The country for which these aspects are operational scores 4 while the lowest score is 0 for a country which does not have these elements established (see Ndegwa, 2002:4)

Asymmetrical decentralization

There are differences in development levels between regions, districts and between rural and urban areas. If in the process of decentralization these differences are not taken into consideration, they may lead not only to unbalanced resource distribution but also to the deepening development differences across the country. To prevent the deepening of these disparities, the policy of decentralization suggests certain criteria which include population size, accessibility to public services, economic viability and environmental considerations (Republic of Rwanda, 2000:11). These differences in development level have contributed to equalize financial transfer and distribution between districts. This process is referred to as asymmetrical decentralization (PNUD, 2002:5).

Asymmetrical decentralization helps to provide assistance to districts with fewer financial resources and therefore ensure that all districts are empowered to fulfill their functions and responsibilities. For this purpose, the Government of Rwanda has established a formula (equation 1, Appendix B) which is used in calculations of funds to be transferred to each district. The formula specifies parameter to be used and each parameter has been attributed a note. For block grants, the following elements are considered: district population size account for 30% of the grant, district area accounts for 10%, and poverty index (measured by differences in district tax revenue) account for 40% and finally the performance index accounts for 20%. (www.minaloc.gov.rw). This formula is only applied to districts with a REVECAP lower than one third of the highest REVECAP in order not only to ensure equalization between districts but also to enable poorer districts get the greater share of transfers. Districts of Kigali City are not

included in this category of districts because their REVECAP is greater than one third of the highest REVECAP (www.minaloc.gov.rw).

A different formula (equation 2 Appendix B) is applied for earmarked grants. These grants are managed by the CDF and the following formula is used for the distribution of funds meant for development projects of districts. The criteria used enable the equalization of investment funds by considering differences in development. The criteria distribute points as shown in Appendix A. These formulas are key indicators of how the government of Rwanda is willing to empower local governments with essential tools that will enable the reduction of poverty in all parts of Rwanda. The asymmetrical decentralization will ensure that all districts are at the same time undertaking actions against poverty.

4.3. Data presentation

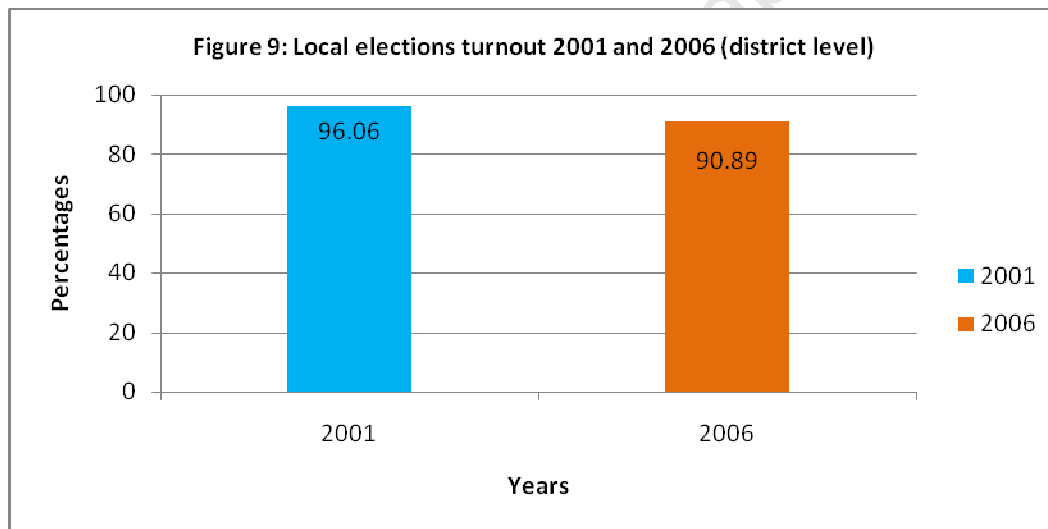
Now that we have reviewed Rwanda's policy of decentralization, the next question has to do with the degree to which decentralization has actually been implemented. In this section, I review a range of data that I have collected on four (resource mobilization, development infrastructure investment, capacity and participation) main aspects of decentralization implementation. This section of the chapter presents data collected during the investigation done to evaluate the implementation of the policy of decentralization adopted by the Government of Rwanda for poverty reduction. These data include:

- The voter turnout and number of cooperatives by district
- Income and expenditure of District Governments

- Development expenditure (on education, health, water and roads) of District governments
- Level of education of district personnel

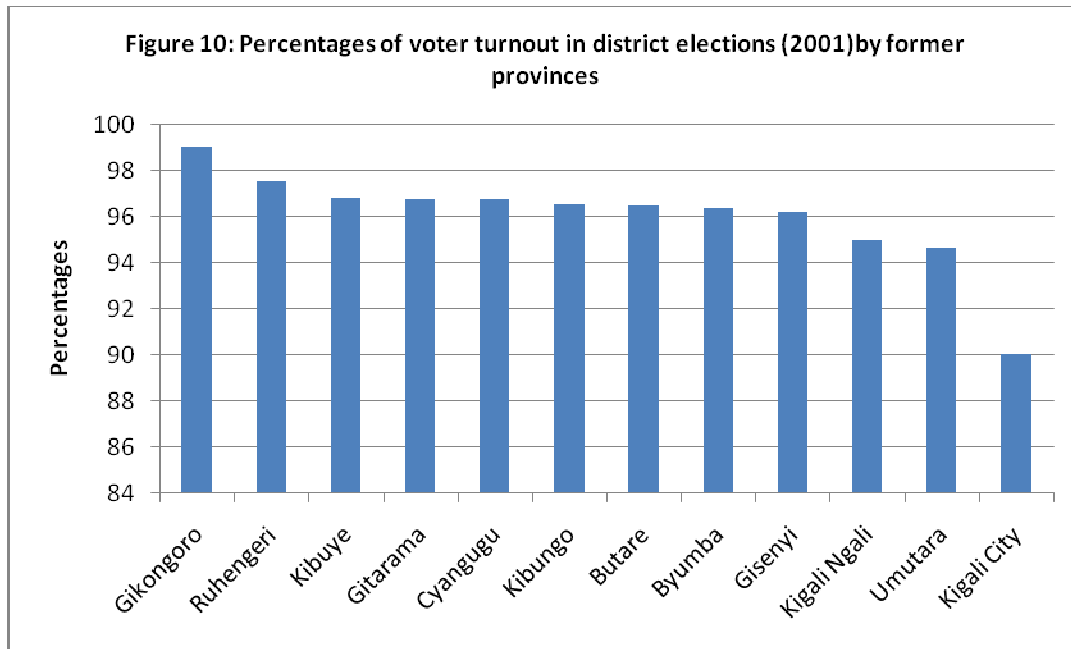
4.3.1. Voter turnout and Cooperatives

The participation of local communities in local election provides one indicator of popular attitudes toward decentralization and the degree to which people are willing to participate in the affairs of local government. As seen in Figure 9, 96.06% of registered voters participated in local elections at district level in 2001 and 90.89% in 2006. This shows how enthusiastic local communities are when electing their representatives at district, sector and cell level.



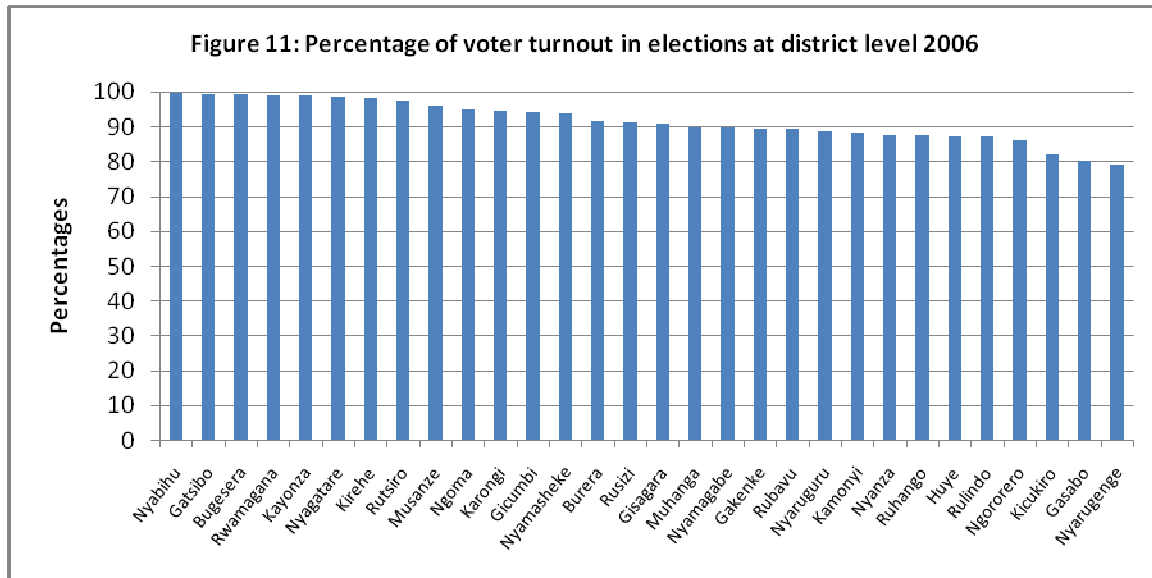
Source: National Electoral Commission (2001 and 2006 reports).

Although there are no available data on voter turnout at district level in 2001, it is clear from the data available at provincial level that the participation of people in local elections is high. For each province the voter turnout is above 90%.



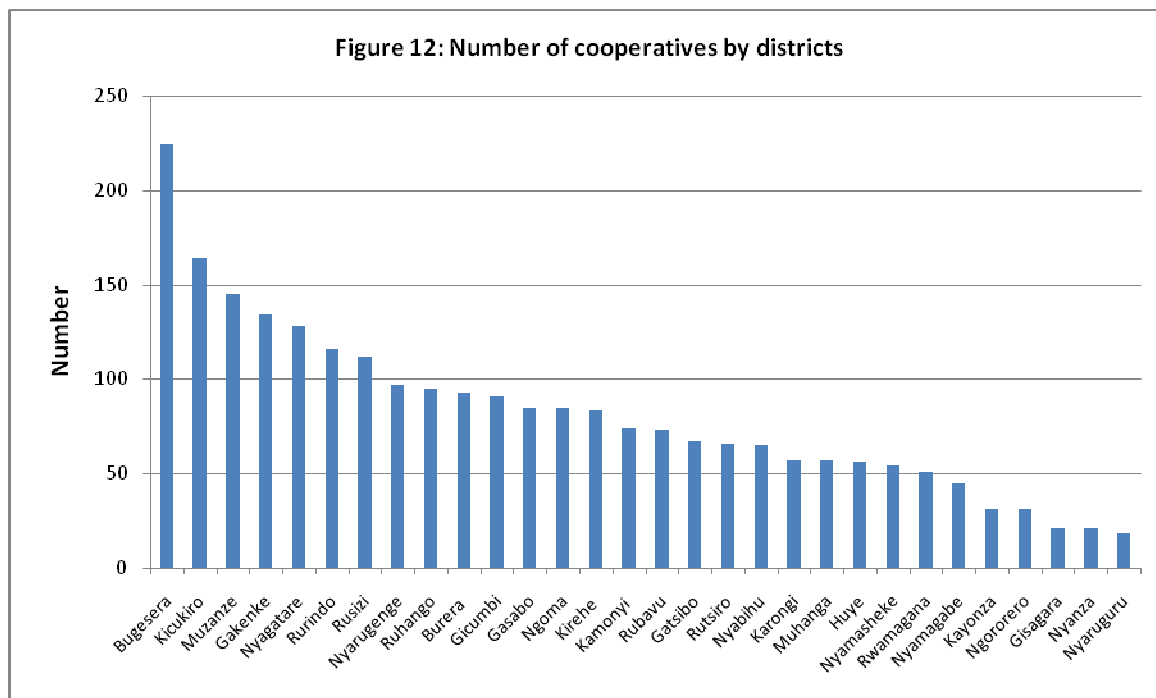
Source: National Electoral Commission (2001).

Voter turnout in 2001 (see Figure 10 above) was high because it was the first time that people were asked to choose their leaders at the local level. It was for them a new democratic experience and they had high expectations of those in whom they placed their faith. However the 2006 elections revealed a slight decrease (Figure 11), though voter turnout in different districts reflected in some manner the situation of 2001. In most districts the voter turnout was still above 90%. Some districts had a lower voter turnout of between 79% and 89%. Most of these districts are either in Kigali City, provincial capitals, or small centers' (Ruhango, Huye, Nyanza, Nyarugenge, Gasabo and Kicukiro). Others in that range are rural or peripheral to Kigali City. These districts are Kamonyi, Rulindo (peripheral to Kigali City) and Ngororero, Nyaruguru (rural). The district with the lowest turnout was Nyarugenge, with 79%.



Source: National electoral commission reports at different districts (2006).

Though elections are the most common method of local participation in the political life of a district, cooperatives provide another way for people to participate in different development activities in the district. In rural areas, the most important civil society groups are cooperatives. They can play an important role in improving agricultural techniques and increasing member's incomes. They are also a way of strengthening social capital at local level and in rural areas in particular. The law determining the organization and functioning of district authorities requires districts to work closely with cooperatives and other associations at local level in order to accelerate economic development and improve service delivery.



Source: Rwanda Cooperative Agency, Minicom (2006).

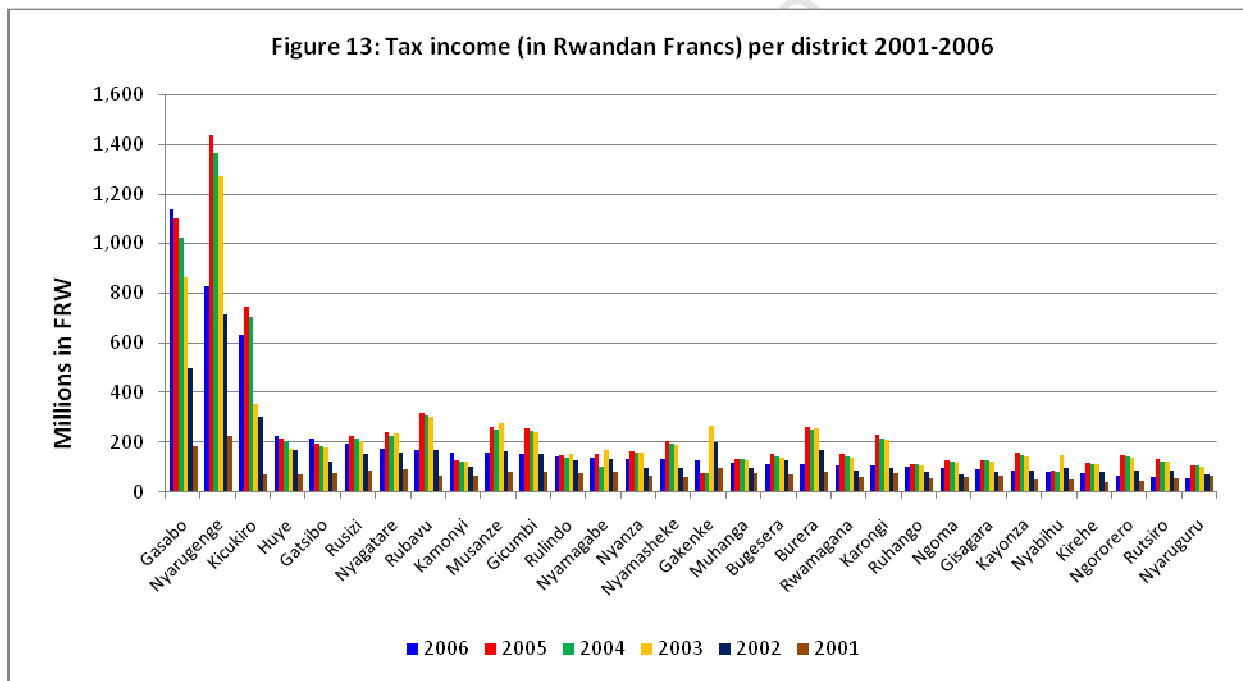
Figure 12 above shows the distribution of cooperatives registered with the ministry of commerce in each district in 2006. The total number of registered cooperatives is 2440, and the majority of them are agricultural based. The district of Bugesera has the highest number of the total of cooperatives, followed by Kicukiro, Musanze, Gakenke, Nyagatare, Rulindo and Rusizi. Districts with the lowest number of cooperatives are Gisagara, Nyaruguru, Nyanza, Ngororero and Kayonza.

4.3.2. District Government Income and expenditure

Since the implantation of decentralization policy, local revenues have increased through both redistribution of transfers from the central government and through raising their own revenue. And this has allowed districts to undertake some projects and has increased the quality of

service delivery though much has still to be done in this regard. This improvement has been facilitated by extending the tax base of districts and transfers from central government.

As shown in the Figure 13 below, the level of tax income have increased over time in most of the districts and particularly in 2006. Between 2001 and 2003 variations in tax income have been observed and income has increased progressively with the exception of the districts of Huye and Gakenke in which tax income has been reducing. Only the district of Kirehe has seen its income diminished in 2002. The increase of tax income in the majority of districts is explained by the implementation of the fiscal decentralization policy.

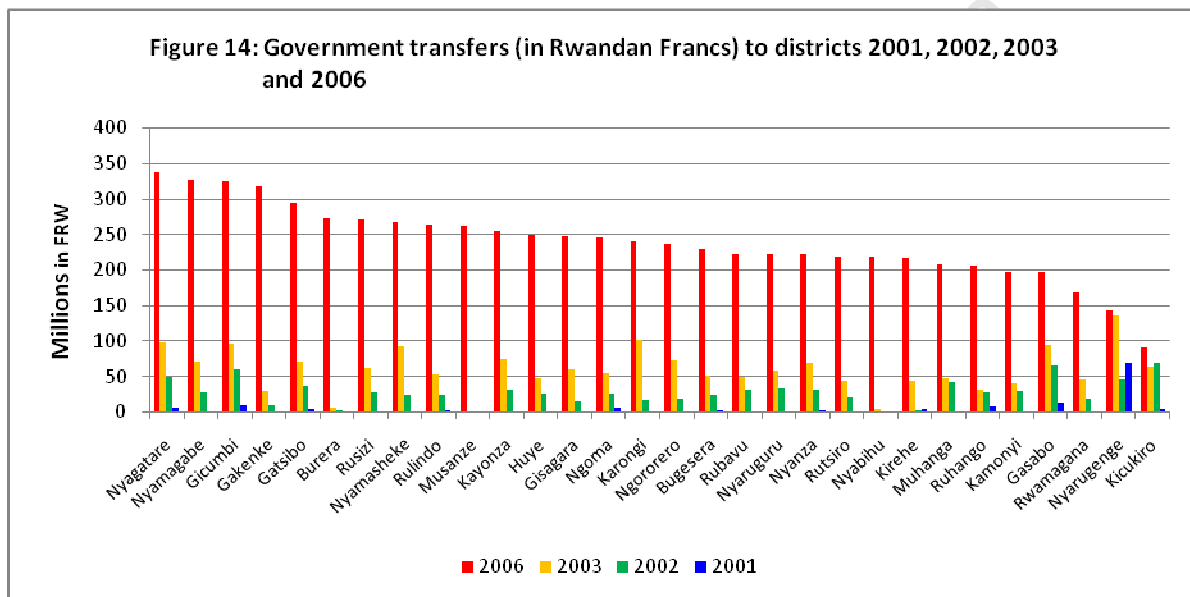


Source: Districts financial reports

Some districts which had a higher income in 2003 (Nyarugenge, Rubavu, Rutsiro, Ngororero, Kayanza and Karongi) have seen their income reduced in 2006. This decrease may be explained by lack of well coordinated mechanisms of collecting taxes coupled with lack of qualified

personnel to do the job. Also, tax collectors tend to report an amount of taxes which is lower to that expected and most of them tend to get bribed by tax payers. The rest of the districts have seen their income from taxes increase in 2006.

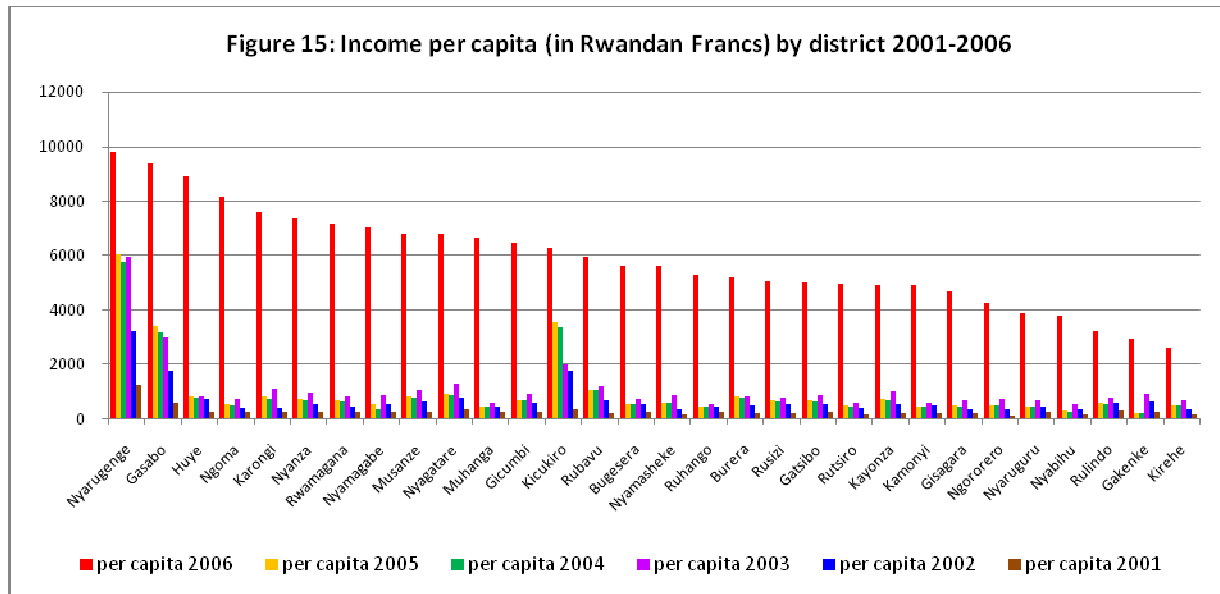
Figure 14 below depicted that, transfers from central government have increased year after year with the highest increments in 2006. These are the effects of central government’s commitment to fiscal decentralization.



Source: Districts financial reports

Fiscal decentralization has contributed to a massive increase in income per capita districts government (see Figure 15 below). In 2001, income per capita was very low in all districts. However districts of Kigali City were the only to have a high income per capita for the 6 years. The district of Gakenke, Kirehe and Rulindo are the only districts to have a lower income per

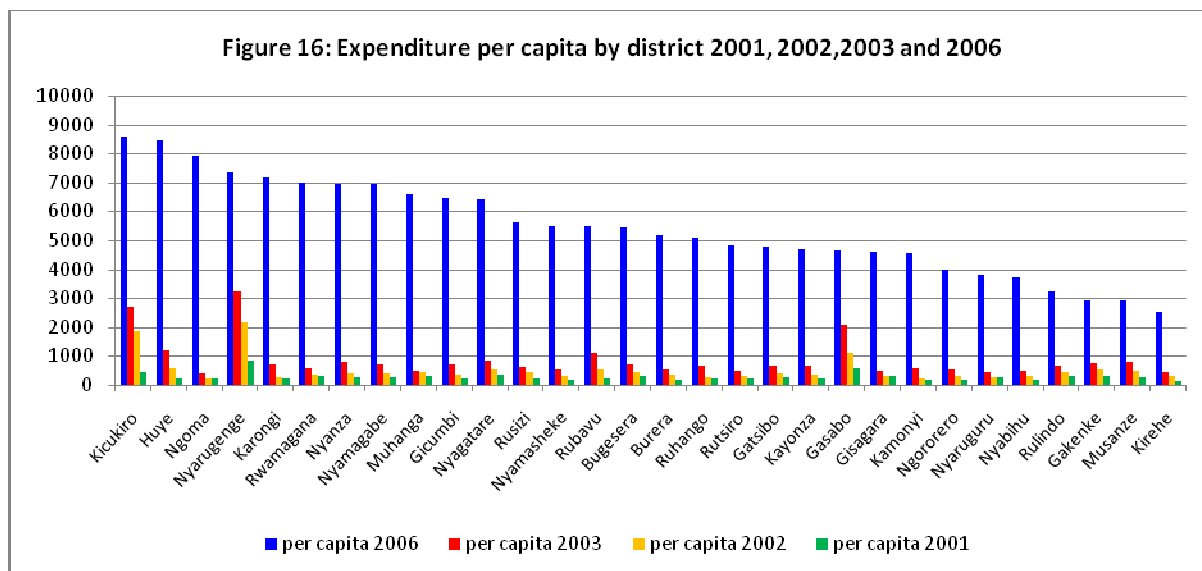
capita in 2006, while Gasabo, Huye and Nyarugenge have a high income per capita for the same year²⁴.



Source: Districts financial reports

Not only has income per capita increased but the expenditure per capita has also increased over the five years with a very significant increase in 2006.

²⁴ Income per capita is calculated on the total income of districts (tax income plus government transfers) and the population is that of 2002 census.



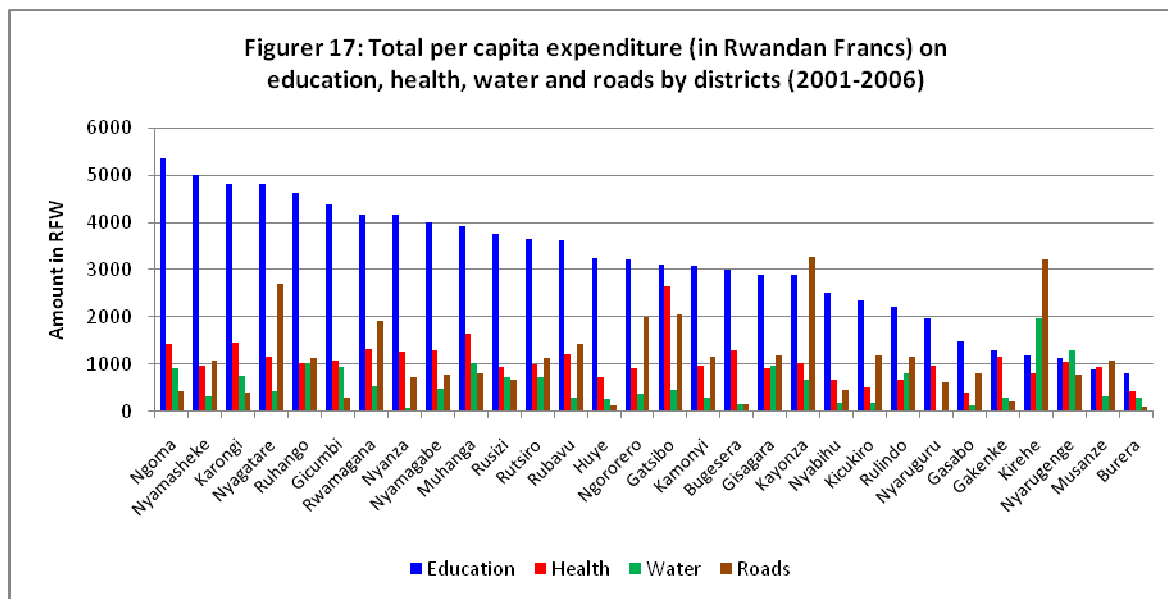
Source: Districts financial reports

As shown in Figure 16 above, expenditure per capita has been high in districts of Kigali City over the 4 years. In 2006 districts of Kirehe, Gakenke and Musanze had the lowest increase in expenditure per capita. All districts have registered a high expenditure per capita in 2006, and this increment occurred over the 4 years²⁵.

4.3.3. Development expenditure (on education, health, water and roads)

In Figure 17 below, total expenditure per capita on education health, water and roads of all districts is presented. Districts of Gicumbi, Karongi, Ngoma, Nyagatare, Nyamasheke and Ruhango have a high expenditure per capita on education while Nyarugenge and Musanze have the lowest expenditure per capita on education. Kayanza, Kirehe, and Nyagatare have the highest per capita expenditure on roads.

²⁵ Expenditure per capita is calculated on the total expenditure of districts (tax income plus government transfers) and the population is that of 2002 census.



Source: Districts financial reports and CDF

The lowest per capita expenditure on roads is observed in Bugesera, Huye, Burera and Gakenke. On health, a high per capita expenditure is observed in Gatsibo, Muhanga and Karongi while a low per capita expenditure on health is observed in Kicukiro, Burera and Gasabo. On water, districts with the highest per capita expenditure are Kirehe, Nyarugenge, Ruhango, Gisagara while the lowest is observed Nyanza, Bugesera, Burera, Gakenke, Gasabo, Huye, Kicukiro. All districts are engaged in development activities and in particular in service delivery than they have been before decentralization. This has been made possible by devolving decision making power and resources to districts.

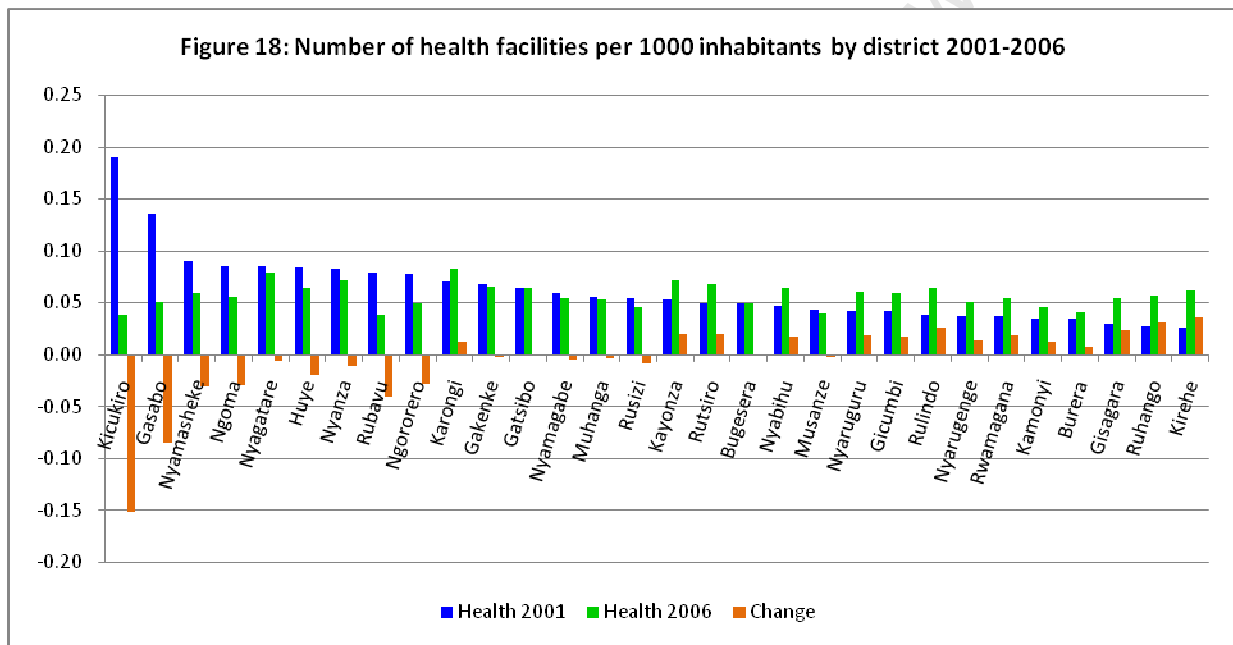
4.3.4. Development infrastructures

The law organizing decentralization in Rwanda stipulates that it is the responsibility of the district to maintain infrastructures existing in the district. In addition, district should ensure

service delivery. To do so, the district is required not only to maintain existing infrastructure but also create new ones.

Health facilities and sanitation

The availability of health facilities has been at the center of the improvement of health service delivery as part of the government’s decentralization policy. In particular local leaders have been involved in community mobilization. Figure 29 below display the number of health facilities per 1000 inhabitants by district.

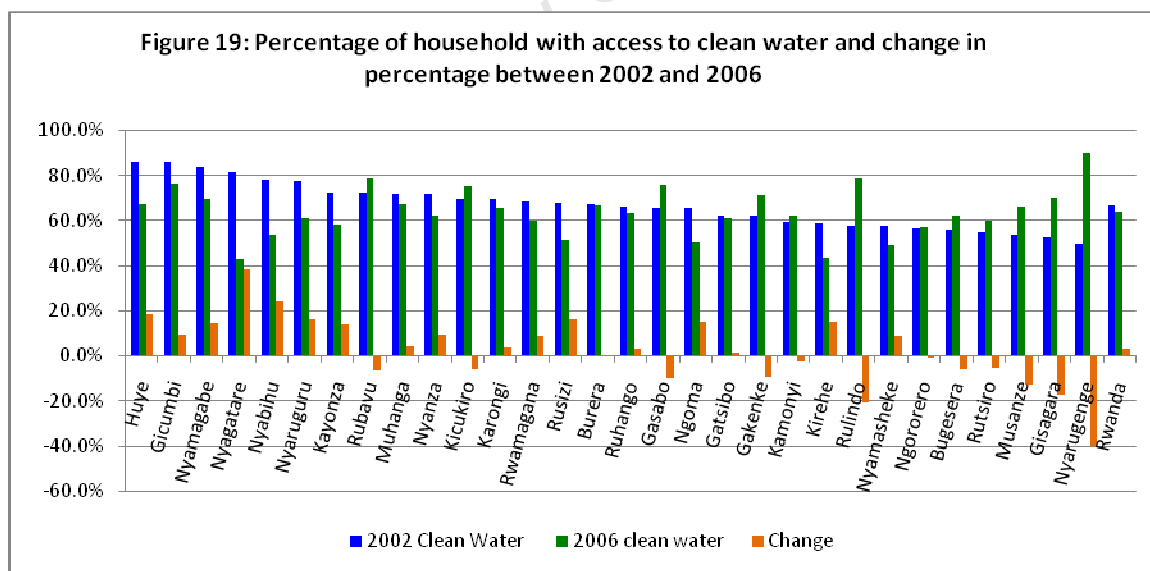


Source: Ministry of Health.

Since 2001, there has been a slight improvement in the availability of health facilities. Number of health facilities per 1000 inhabitants reduced Districts of Kicukiro, Gasabo, Nyamasheke, Ngoma, Nyagatare, Huye, Rubavu and Ngororero between 2001 and 2002 while for the same period of time it has increased in Karongi, Kayonza, Rutsiro, Nyabihu, Nyaruguru, Gicumbi,

Rulindo, Ruhango, Kirehe, Gisagara and Rwamagana. A significant decrease occurred in Kicukiro, Gasabo and Rubavu²⁶.

With regard to access to clean water, results from the two EICVs show that the overall percentage of households with access to clean water decreased from 64.4% as recorded in the 2000/2001 EICV to 64.2% as shown in the 2005/06 EICV, while the percentage of those with no access to clean water has increased by 0.2% (35.6% in EICV1 and 35.4% in EICV2). There has not been any change in access to clean water. The Figure below displays Figures from the 2002 census of the population and those from the EICV 2006. As is shown in some districts the percentage of households with access to clean water have dropped significantly (Nyabihu, Nyagatare, Huye, Nyamagabe and Nyaruguru) while in some others there has been an increase (Nyarugenge, Rulindo, Musanze, Rubavu, Gasabo, Bugesera, Gakenke, Gisagara, Kicukiro and Rutsiro).



Source: 3-RGPH 2002 and EICV 2005/2006

²⁶ This decrease is explained by the measures and conditions set by the Ministry of Health which aimed at tracking those health facilities which were operating without required human and material resources. And in particular it dealt with those who were under qualified.

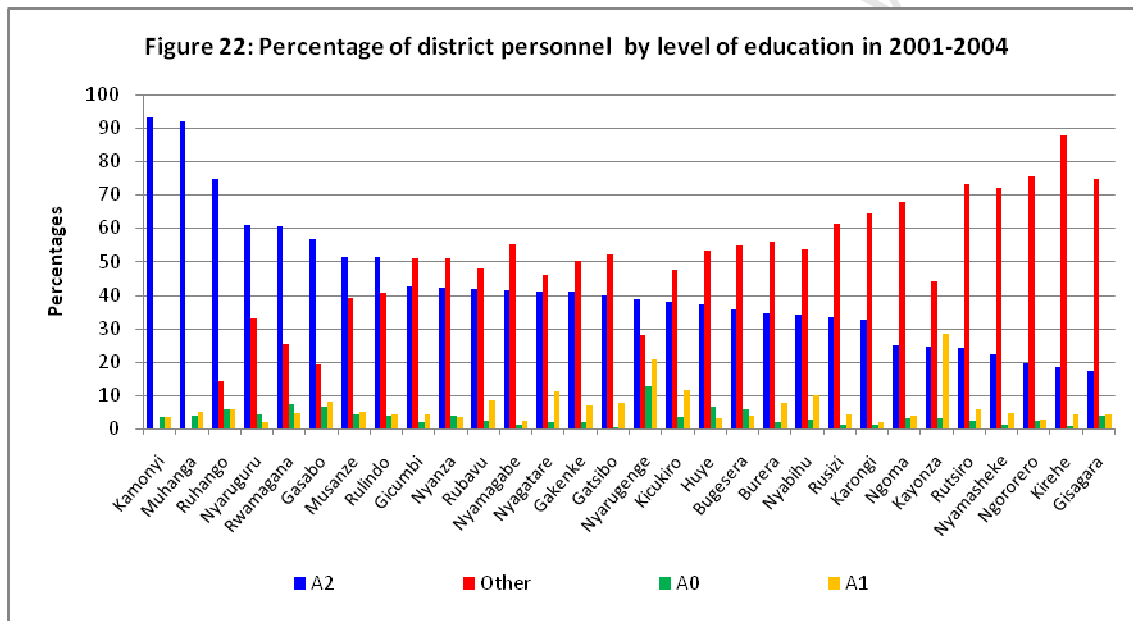
Education infrastructure

Net enrolment at primary and secondary schools increased between the two EICV. For primary school, net enrolment increased from 73.7% as shown in the 2000/2001 EICV to 85.9% as demonstrated in the 2005/2006 EICV. In rural areas, net enrolment at primary school increased from 72.9% to 85.1%, while in urban area it increased from 82.7% to 90.4% in Kigali city and from 74.1% to 90.1% in other urban areas. The gross enrolment also increased from 110.5% to 140.2%. In rural areas it increased from 109.9% to 139.9% while in urban areas it increased from 128% to 130% in Kigali City and from 115.2% to 149.6% for other urban area. The net enrolment for secondary school has improved from 6.9% as recorded in the 2000/01 EICV to 10% as shown in the 2005/06 EICV. These rates are higher in urban areas (23.6% to 29.1% in Kigali City and from 9.3% to 13.8% for other urban) than in rural areas (from 5% to 7%). The Figure below which shows the distribution of primary and secondary schools per 1000 inhabitant by district provide an explanation about the increase of enrolment rate in primary and secondary school. The number of school per 1000 inhabitants declined in Karongi, Ngororero districts while it has increased significantly in Nyaruguru, Ruhango, Rulindo, Gicumbi, Kirehe and Gisagara districts. The only district with a small number of schools per 1000 inhabitant is Nyarugenge. All districts have registered an increase in number of secondary schools per 1000 inhabitants with the exception of the district of Nyanza (see Figure 31 and 32 below). A significant increase occurred in districts of Ruhango, Rulindo, Ngoma and Gisagara (Figure 31 and 32).

corroborates other evidence that Rwanda is still a poor country and the government needs further strategies to bring in changes in terms of poverty reduction.

4.3.5. Level of education of district personnel

Conception, execution and monitoring of development programmes require a certain level of qualification. Figure 18 and 19 below show differences in availability of human resources at district level. It can be observed that urban districts tend to have a higher percentage of qualified personnel while rural districts experience qualified human resource shortages.



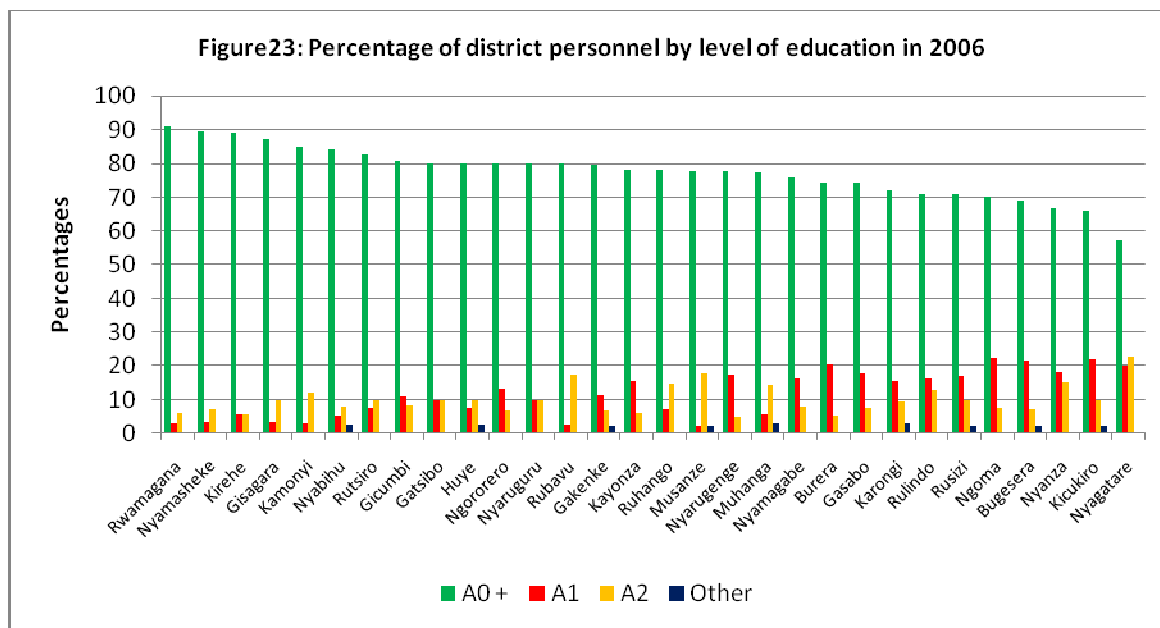
Source: District financial reports, 2004.

The district of Nyarugenge, Rwamagana, Gasabo, Bugesera, Huye and Ruhango have a high percentage of qualified personnel with university degree A0 (four years of university) the highest being that of Nyarugenge. Other districts and cities have a percentage which is between 5 and 10. The only district that has any qualified personnel with A0 level qualifications is Gatsibo. High percentages of personnel with A0 degree is observed in urban districts. Only

Bugesera, has a high percentage compared to other rural districts. However many districts have a personnel with the A1 or BACC (2 years of university) qualification and the districts which score highest in this regard is Kayonza, Nyarugenge, Kicukiro, Nyagatare, Nyabihu, Burera, Gasabo and Gakenke. As the Figure above show, the majority of district personnel are individuals who have only completed high school and those who have other qualification. In some districts (Kirehe, Karongi, Gisagara, Ngororero, Nyamasheke, Rutsiro and Ngoma) the majority of personnel have no qualification (incomplete secondary school or primary).

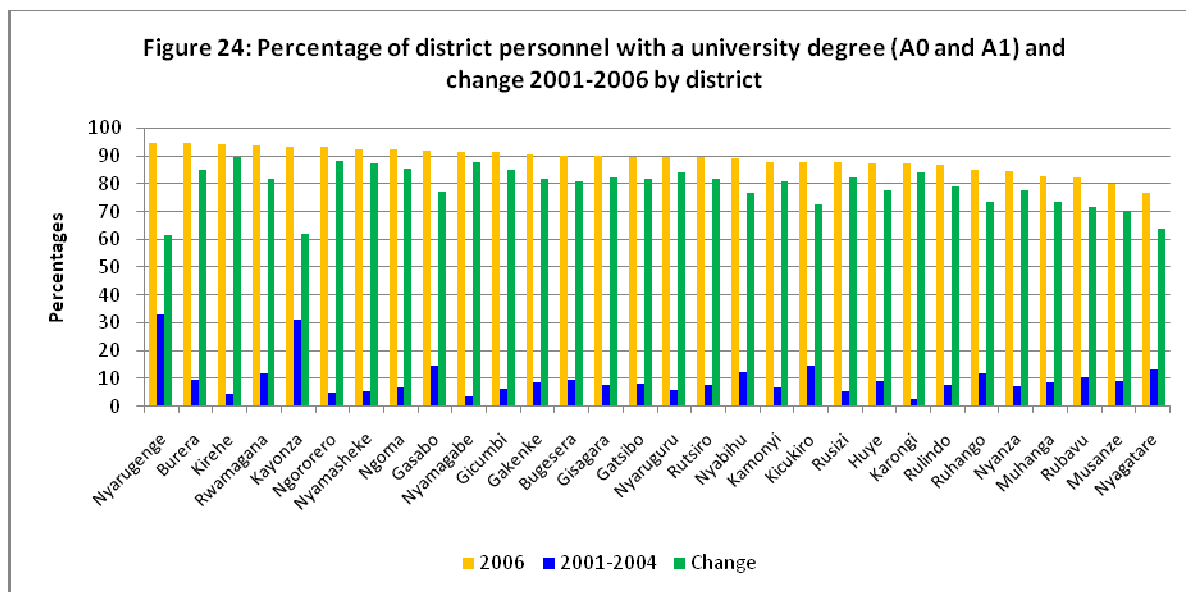
The above Figure indicates that districts are confronted with a shortage in human resources. Local government structures dominated by a category of less educated and unqualified personnel may constitute an impediment to the fight against poverty. This affects service delivery through limiting the ability of local government staff to analyze and understand problems expressed by local communities and measures to be taken in this regard.

However, the situation has changed since 2006. The Government of Rwanda has reduced the number of districts from 106 to 30 and reduced the number of personnel at central level while increasing the number of qualified personnel at district level. To reduce differences in salaries and attract more qualified individuals to the districts, salaries of district personnel were increased.



Source: Districts offices and District development Plan.

Figure 19 above shows that the overall percentage of personnel with A0 qualifications is above 77% while the percentage of those with A1 and A2 qualifications (6 years of high school) is respectively 12% and 10.1%. Each district has now a percentage of personnel with A0 qualification which is above 50%. The district with the lowest percentage of personnel with A0 qualifications is Nyagatare (57.1%) while the districts with the highest percentage of the same category of personnel are Rwamagana with about 91% followed by Nyamasheke (89.3%), Kirehe (88.9%), Gisagara (87.1%), Nyabihu (84.2%), Rusizi (82.5%) and Gicumbi (81%). Districts of Bugesera, Burera, Kicukiro, Ngoma and Nyagatare have the highest percentage of personnel with A1 level qualifications while Rutsiro Musanze, Rwamagana score lowest for the same category. The districts of Nyagatare, Musanze and Rutsiro have the highest percentage of personnel with A2 qualifications.



It can be observed that at the time of the implementation of decentralization, districts had a shortage of human resources and the government attempted to address this problem in 2006. Though today districts seem to have an increment in human resources, they are still less attractive to qualified people, particularly rural districts. From most of the district's reports it can be observed that some posts are either filled by less qualified personnel or are vacant.

4.4. Problems

Though the government of Rwanda has undertaken all it can to enable local government be more effective in fulfilling their duties, there are persistent problems. Local governments lack capacity to access resources because their fiscal base is still small though it has been enlarged by central government. Nowadays local governments target those activities which are relevant for local communities. This results in a shortage of financial resources to ensure their financial autonomy and commitment to development activities. This problem is also amplified by the lack of trained personal capable of leading local development. Most districts do not have

retention capacities for their personnel, as most qualified personnel still prefer to work in cities where they are in contact with opportunities. The issue of poverty will only be tackled if capable personnel and with financial resources are available. The next chapter discusses poverty in Rwanda and presents some actions taken to overcome it.

University of Cape Town

CHAPTER 5: POVERTY IN RWANDA

The previous chapter discussed Rwanda's decentralization policy and its implementation. It dealt with the strengths and weaknesses of the implementation and in particular the major threats to its success with regard to the objective of poverty reduction. The following chapter discusses poverty in Rwanda and some actions taken to reduce poverty. Firstly, an overview of poverty in Rwanda is presented followed by a discussion on causes of poverty in Rwanda and the characteristics of the poor in Rwanda. Secondly, it presents strategies adopted to fight poverty and thirdly, this chapter presents data on poverty change in Rwanda.

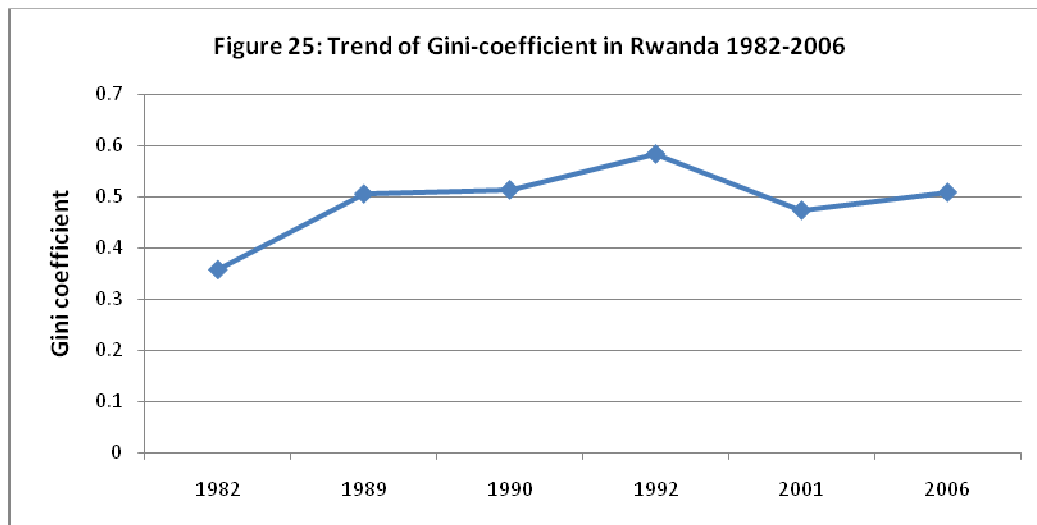
5.1. Overview of poverty in Rwanda

Poverty is not a new experience in Rwanda. It has been the central issue facing successive governments from colonial rule to post independence governments after independence and to the current government. Rwanda is one of the poorest countries in the world²⁷. Until the early 1980s, however, it was among the countries with the most equally distributed resources, which can be explained by traditional customs that provide some guarantees to the poor. Hence up to 1983 Rwanda was considered at least egalitarian in terms of resource distribution between poor and rich²⁸. Compared to neighboring countries such as the Democratic Republic of the Congo (DRC) and Uganda, Rwanda was in a better social-economic situation. However, the introduction of liberalization and structural adjustment in 1986-1987, as suggested by the IMF, destroyed this economic equilibrium and inequalities increased (see Maton, 1994). Economic hardship among rural communities could be observed and the situation became more critical in

²⁷ Ranked 165th out of 179 countries in 2006 by UNDP (See www.hdr.undp.org).

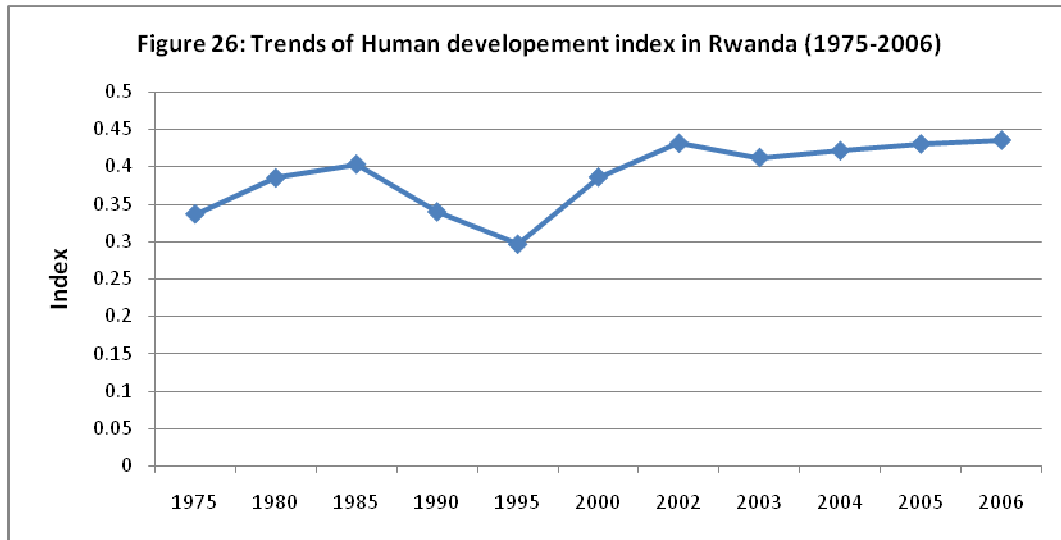
²⁸ For more details see Maton, 1994.

1986-1987. During this period the gap between agricultural revenue and non-agricultural deepened. Agricultural revenue decreased while revenue from non agricultural sources increased. This indicates that a small group of the privileged was gaining more than the majority of Rwandans, as displayed in the Figure 21 below.



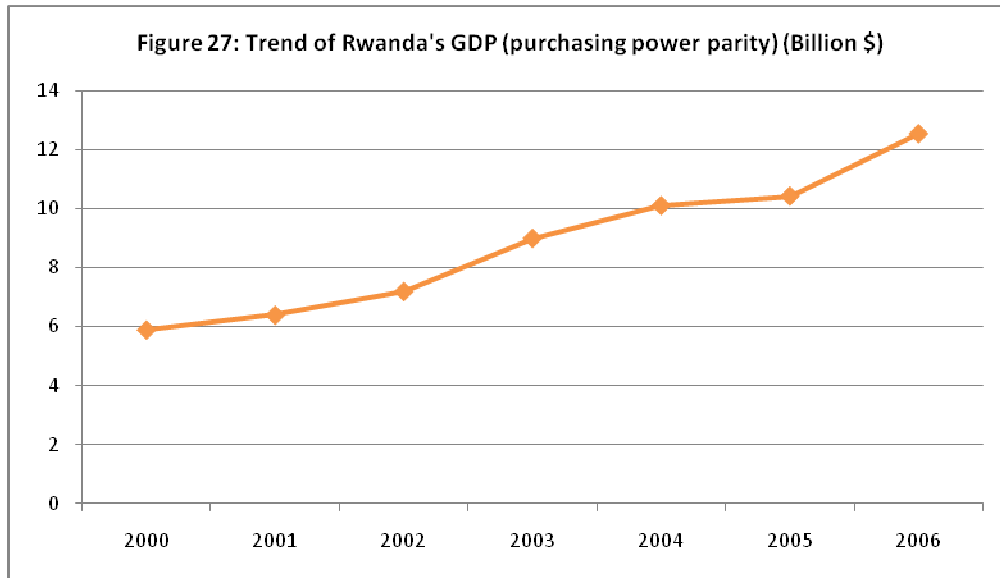
Source: Maton, 1994 and EICV 2001 and EICV 2006.

In 1989, some regions were confronted by famine with the Southern region most affected. Inequalities in resource distribution increased drastically between 1984 and 1992. Though there were signs of economic deterioration, the country's human development index had been improving until the political turmoil of 1994 as depicted in Figure 22 below.



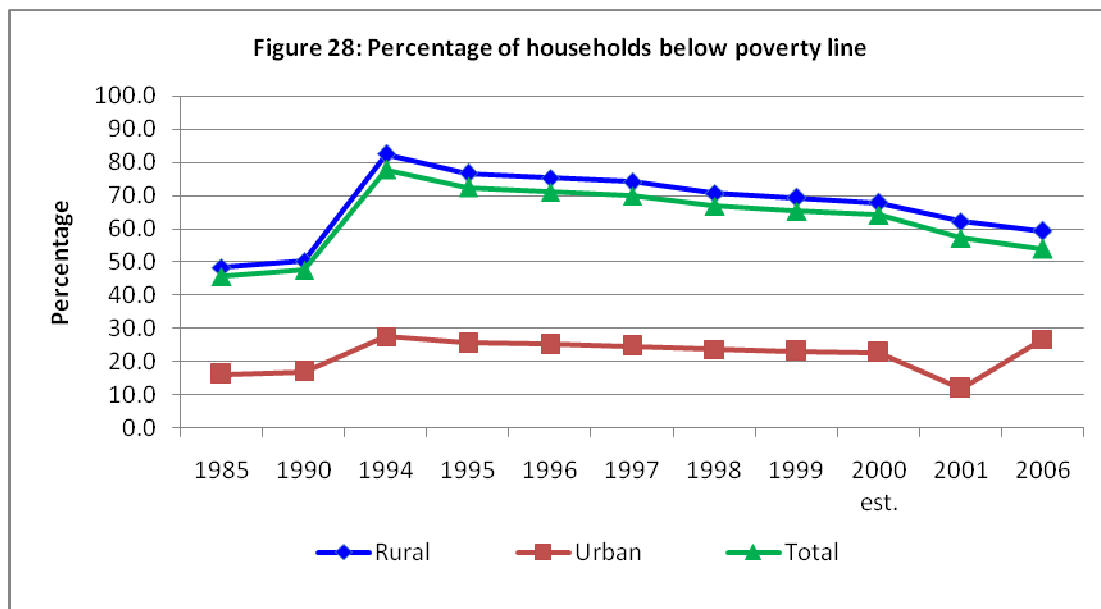
Source: http://hdrstats.undp.org/en/countries/data_sheets/cty_ds_RWA.html
http://web.archive.org/web/20070614000931/http://hdr.undp.org/reports/global/2004/pdf/hdr04_HDI.pdf
<http://data.un.org/DocumentData.aspx?id=115>

The greatest deterioration occurred between 1985 and 2000. The human development index of 2000 was the same as that of 1980. Since 2000 there has been an improvement. This shows how the country is developing. This improvement of human development index is also corroborated by the increase of the gross domestic product (purchasing power parity) from 2000 to 2006 as shown in the Figure 23 below.



Source: [http://www.indexmundi.com/rwanda/gdp_per_capita_\(ppp\).html](http://www.indexmundi.com/rwanda/gdp_per_capita_(ppp).html)

Concerning poverty the Figure 24 below show that since 1985 the number of households below the poverty line has been increasing and that between 1994 and 1997 the percentages were between 70% and 78%, with the year 1994 registering the highest percentage. For all years, rural areas have the highest percentages of households below the poverty line. After 1985 the percentage of households below the poverty line increased, but after 1999 the percentage of poor households decreased. The percentage of households under poverty line increased significantly in both rural and urban areas in 1994, as a result of the genocide. In urban area, the percentage of households under the poverty line decreased between 2000 and 2001 but increased again in 2006.



Source: The Government of Rwanda Poverty Reduction Strategy Paper, 2002:14 and EICV 2001 and EICV 2006.

If the genocide has deeply affected both rural and urban areas, there were already signs of a declining socio-economic situation in Rwanda before this tragedy, which was accelerated by a decline in agriculture production and particularly food production and the fall in the price of coffee on international markets.

5.2. Poverty reduction strategies

The will of the Government of Rwanda to combat poverty is strong and expressed in the “National Strategy for Poverty Reduction”. This document describes in detail the main priorities for poverty reduction. The poverty strategy aims at reducing poverty with the following key actions:

- Transformation of agriculture and rural development
- Development of economic infrastructures
- Good governance

- Development of the private sector
- Development and use of information and communication technologies (ICT)
- Development of human capital.

These key actions are linked to the government's long term development strategy known as "Vision 2020" which is based at the following pillars:

- Good political and economic governance: this includes building an effective public sector, transparency, accountability and efficiency in allocation of resources and ensuring participation of local communities through decentralization.
- Human resource development and a knowledge-based economy: the attention is put on improving overall education levels and in particular in management and applied and natural sciences. Also targeted is the improvement of health by reducing infant and maternal mortality, putting in place health policies targeting the poorest and by encouraging family planning and reducing HIV/AIDS prevalence.
- Private sector-led economy: the point here is that the government plays the role of catalyst by putting in place infrastructure, human resources and legal frameworks to stimulate economic growth and investment.
- Infrastructure development: emphasis is on land management, urban development, transport, communication and ICT, energy, water and waste management.
- Productive high value and market oriented agriculture
- Regional and international integration (Republic of Rwanda, 2000).

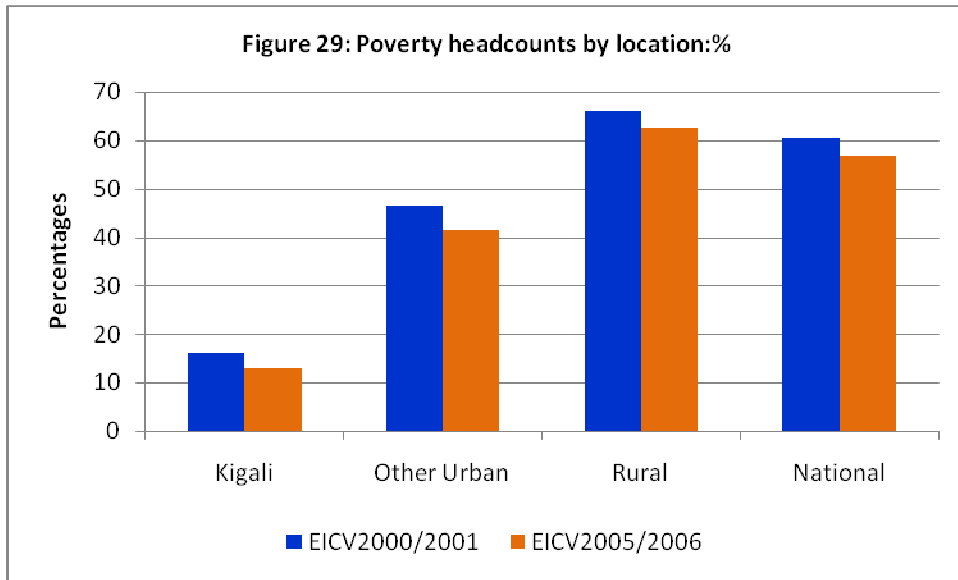
The implementation of these strategies for poverty reduction is done through medium-term strategies detailed in documents such as the poverty strategic paper (PRSP) and now the

EDPRS. The PRSP which was implemented from 2002 to 2005 focused more on reconstruction and rehabilitation. Development plans at national and local level were then prepared in accordance with the PRSP for the period 2002 to 2005. Building upon the experience of the PRSP, the EDPRS suggests more consistent measures to ease the poverty implementation process. It reviews and redefines priorities in Rwanda by placing emphasis on the consolidation and extension of public spending, decentralization and the recognition of the contribution of the private sector in boosting economic growth (Republic of Rwanda, 2007:1). In all these documents (PRSP, EDPRS and Vision 2020), decentralization is stated as a priority in order to ensure better outcomes in development. Thus, all development plans of districts have been elaborated in conformity with the county's Vision 2020, PRSP and EDPRS. In this regard the Government of Rwanda has gone further by requesting different layers of local government to elaborate their Vision 2020 (down to village level) with the clear objective of accelerating poverty reduction in local communities. This is recognition of the capacity of local governments to contribute to poverty reduction. Allowing them to plan their own development is to enable the government and development partners to target the most pressing needs for poverty reduction.

5.3. Poverty variation in Rwanda

After the 1994 genocide, poverty reduction dominated the government agenda and many surveys were conducted for a better understanding of the root causes of poverty. Since then poverty has been estimated not at household level but at the level of individuals. The EICV 2000/2001 and 2005/2006 give an indication of trends in poverty in Rwanda after the genocide. Figure below show that there was a decline in poverty between 2001 and 2006. The decline

occurred in all areas of the country. However, it can be observed that rural areas are still poorer than urban areas. This indicates that poverty in Rwanda is more a rural phenomenon.



Source: National Institutes of Statistics of Rwanda, 2006 (EICV1 and EICV2)

Although the percentage of people below the poverty line declined between 2001 and 2006, the variation in the Gini coefficient shows that inequalities still exist. The Gini coefficient rose from 0.473 to 0.508 during that period.

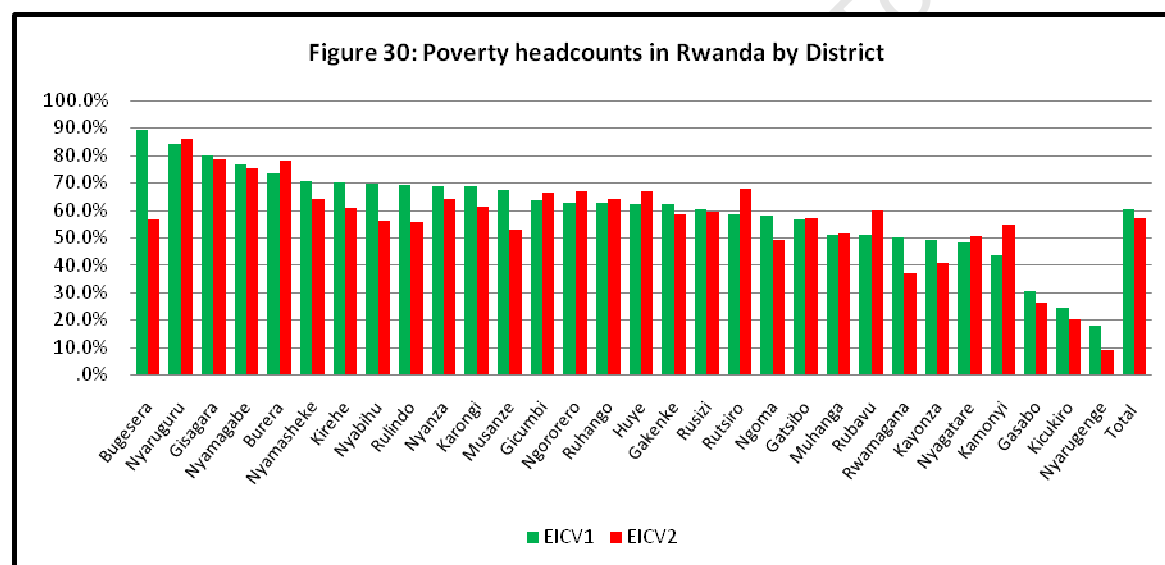
Poverty incidence levels vary also geographically. This is in part explained by differences in availability of potentialities and opportunities. Depending largely on agricultural activities to feed themselves, Rwandan households in some regions face scarcity of land to cultivate due to the large population and poor soil. Thus, in Rwanda poverty incidence tends to be higher in rural areas than in urban areas. Poverty has been reduced in 17 out of 12 districts between the two EICV surveys. As the table 2 and Figure 26 below show, the highest fall (beyond 10%) in poverty reduction occurred in the districts of Bugesera (32.4%), Rwamagana (13.4%), Musanze (14.5%) Rulindo (13.6%) and Nyabihu (13.5%). A fall in poverty which is between 5% and 10%

occurred in the districts of Karongi (7.5%), Kayonza (8.2%), Kirehe (9.5%), Ngoma (8.7%), Nyamasheke (6.7%), Nyarugenge (8.8%) and Nyanza (5%). Overall, the districts of the Eastern Province have had a better score in terms of poverty reduction compared to districts of other provinces. They are followed by those of Northern Province. Districts of the Southern province have lower negative scores in terms of poverty reduction. Thus, poverty has increased in twelve districts and five of them are located in Southern Province, two in the Northern Province and two in Eastern Province. The districts in which poverty has increased substantially are Kamonyi (10.9%), Rutsiro (9.1%), Rubavu (8.7%), Huye (4.7%) and Burera (4.7%). The rest of the twelve districts have had an increase which is between 0.3 and 2.5%. The districts of Gatsibo and Muhanga have the lowest increase in poverty.

Table 2: Change in Poverty headcounts in Rwanda by District

| Districts | EICV1 | EICV2 | Change in poverty incidence |
|-----------|-------|-------|-----------------------------|
| Bugesera | 89.2% | 56.7% | 32.5% |
| Burera | 73.2% | 77.8% | -4.7% |
| Gakenke | 62.0% | 58.4% | 3.6% |
| Gasabo | 30.5% | 26.3% | 4.2% |
| Gatsibo | 56.4% | 57.1% | -.7% |
| Gicumbi | 63.7% | 66.5% | -2.7% |
| Gisagara | 80.1% | 78.5% | 1.6% |
| Huye | 62.0% | 66.8% | -4.8% |
| Kamonyi | 43.7% | 54.6% | -10.9% |
| Karongi | 68.6% | 61.0% | 7.5% |
| Kayonza | 48.9% | 40.6% | 8.2% |
| Kicukiro | 24.1% | 20.2% | 3.9% |
| Kirehe | 70.3% | 60.7% | 9.5% |
| Muhanga | 51.0% | 51.3% | -.3% |
| Musanze | 67.3% | 52.8% | 14.5% |
| Ngoma | 57.9% | 49.2% | 8.7% |
| Ngororero | 62.7% | 66.9% | -4.2% |
| Nyabihu | 69.6% | 56.1% | 13.5% |

| | | | |
|--------------|--------------|--------------|-------------|
| Nyagatare | 48.1% | 50.3% | -2.2% |
| Nyamagabe | 76.6% | 75.3% | 1.4% |
| Nyamasheke | 70.6% | 63.9% | 6.7% |
| Nyanza | 68.6% | 64.1% | 4.5% |
| Nyarugenge | 17.8% | 9.0% | 8.8% |
| Nyaruguru | 83.9% | 86.1% | -2.2% |
| Rubavu | 50.9% | 59.6% | -8.7% |
| Ruhango | 62.6% | 64.2% | -1.6% |
| Rulindo | 69.3% | 55.7% | 13.6% |
| Rusizi | 60.5% | 59.1% | 1.4% |
| Rutsiro | 58.5% | 67.6% | -9.1% |
| Rwamagana | 50.1% | 36.7% | 13.4% |
| Total | 60.4% | 56.9% | 3.6% |

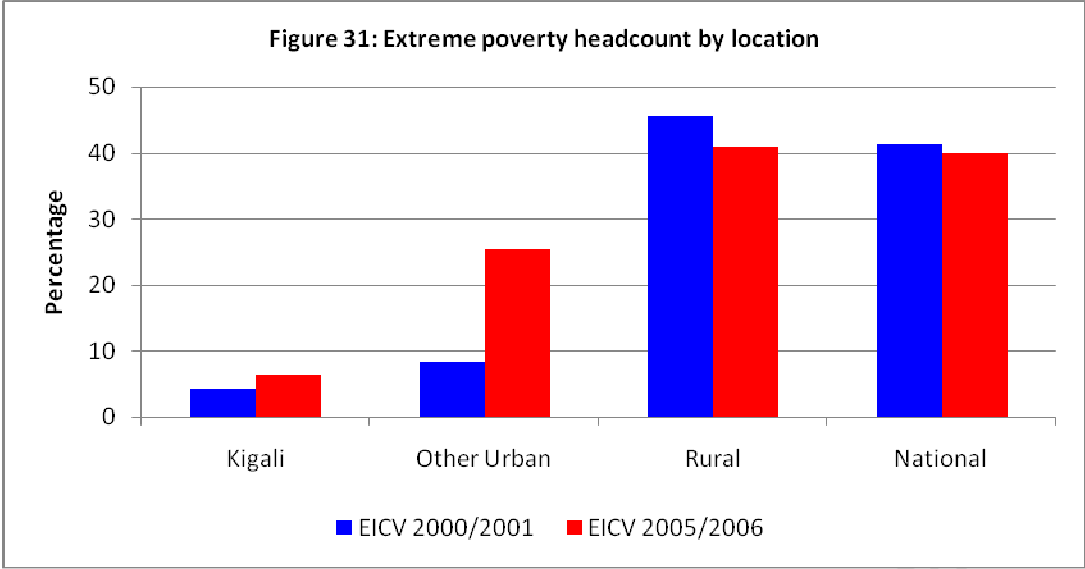


Source: EICV200/2001 and EICV 2005/2006

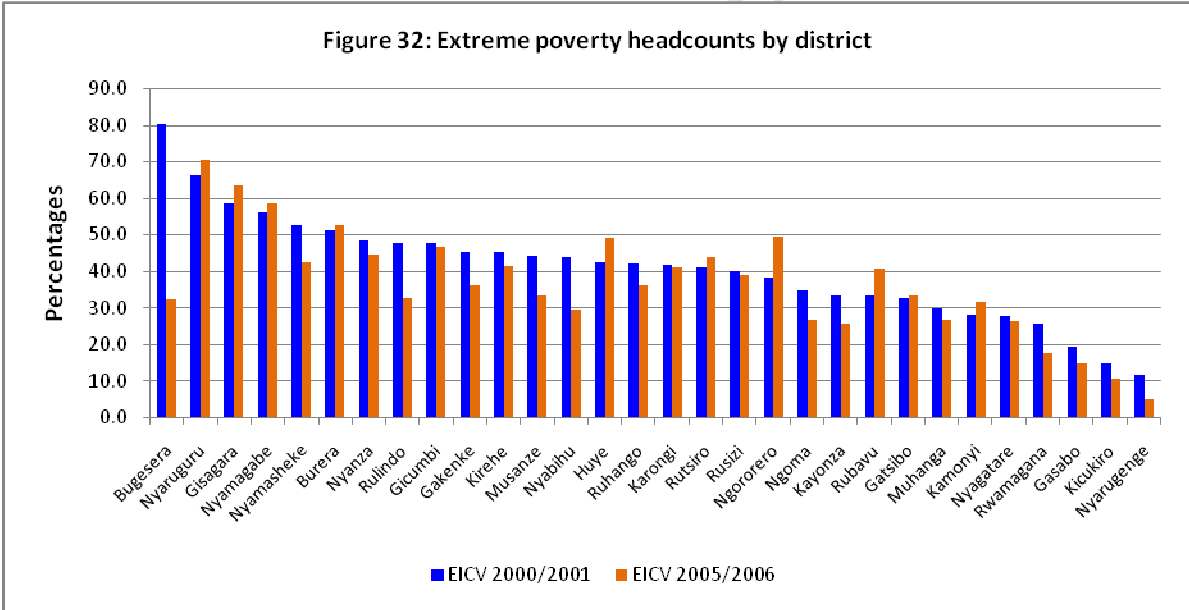
The overall picture indicates that poverty has reduced in both rural and urban districts, though rural districts remain more affected than urban. Some rural districts (Bugesera, Rulindo, Nyabihu, Kayanza, Kirehe and Nymasheke) have registered high positive scores in poverty change between the two surveys. Their scores are even higher than those of urban districts. Can this be an indication that decentralization and improvement in local governance which

occurred since 2001 has led to poverty reduction? This question will be discussed in the next chapter which aims to explore the link between poverty reduction and decentralization.

Poverty in Rwanda can be explained in two dimensions: income poverty and social poverty. Poor households face problems in income generation which has an impact on social poverty. Low income prevents the poor from having access to health care and education, and limits their ability to improve their overall living conditions. The statistics presented in the previous section show how deep income poverty is in Rwanda. Income poverty is estimated from consumption expenditures and is determined by establishing a poverty line. In Rwanda, income analysis has led to the creation of two poverty lines. One is related to extreme poverty which is poverty in terms of food supply. This extreme poverty line is set at Frw 45,000 per adult per year. The other poverty line is used to understand the overall poverty incidence and is set at Frw 64,000 per adult per year. Results from EICV 2000/2001 and EICV 2005/2006 show that between the two periods a decline has occurred in both overall poverty and extreme poverty. As shown in the Figure 27 below, the fall in extreme poverty occurred in rural areas and in Kigali while in other urban areas it has increased slightly. Data from the two EICV indicate that an increase in extreme poverty has occurred in Nyaruguru, Gisagara, Nyamagabe, Burera, Huye, Rutsiro, Ngororero and Rubavu. In the rest of districts there has been a fall in extreme poverty, the greater decline being observed in Bugesera, Nyabihu and Rulindo (see Figure 28 below).



Source: National institutes of statistics of Rwanda, 2006 (EICV1 and EICV2)



Source: National institutes of statistics of Rwanda, 2006 (EICV1 and EICV2)

At national level, extreme poverty as indicated in EICV 2000/2001 fell from 41.3% to 39.9%. According to EICV 2005/2006, the highest reduction in extreme poverty has occurred in Kigali.

This chapter discussed poverty in Rwanda by underlining its causes and the strategies taken by the government to fight against it. Rwanda, despite the huge progress registered in the aftermath of genocide, has many challenges that may hinder its combat of poverty. To win the war against poverty, Rwanda should address its direct and indirect causes. One of the ways to do this is the building of institutions capable of responding to the needs of local communities and capable of opening up more opportunities to them. The first step has been taken with decentralization; and it is in the interest of local communities to make sure they help these institutions to be more effective and efficient and ensure that decentralization helps them get out of poverty. In this chapter it has been shown that levels of poverty fell from 60.4% to 56.9% between 2001 and 2006. This occurred when the government's policy of decentralization was implemented and had among its objectives the reduction of poverty among Rwandans. The following chapter will try to show if there is any connection between this reduction in poverty levels and the implementation of the policy of decentralization.

CHAPTER 6: EXPLORING THE LINK BETWEEN DECENTRALIZATION AND POVERTY REDUCTION IN RWANDA

6.1. Introduction

Previous chapters have dealt with the overall situation of decentralization and poverty in Rwanda. In this chapter the focus will be on testing the hypothesis of the thesis empirically. The empirical test of the hypothesis will confirm the existence of a relationship between poverty change and other variables which include resource mobilization, government expenditure and developmental investment, capabilities of district staff, participation and the damage of genocide. The conjecture is statistically tested using these dimensions and a correlation will substantiate the relationship that may exist between the above variables and the level of poverty change. Confirmation of the effect of each of the variables on poverty reduction would determine whether decentralization as an institutional arrangement leads to poverty reduction. In this study, a negative correlation would imply that decentralization has contributed to poverty reduction while a positive correlation proves otherwise. The relationship between each of the variables of decentralization and poverty reduction is explored by running a bivariate correlation. The inference that decentralization has an effect on poverty reduction will be tested in different ways:

1. Through an examination of the poverty reduction in relation to changes in income and expenditure per capita in all districts of Rwanda,
2. By investigating what changes in poverty levels are related to the level of participation of local communities in local election and the number of cooperatives,

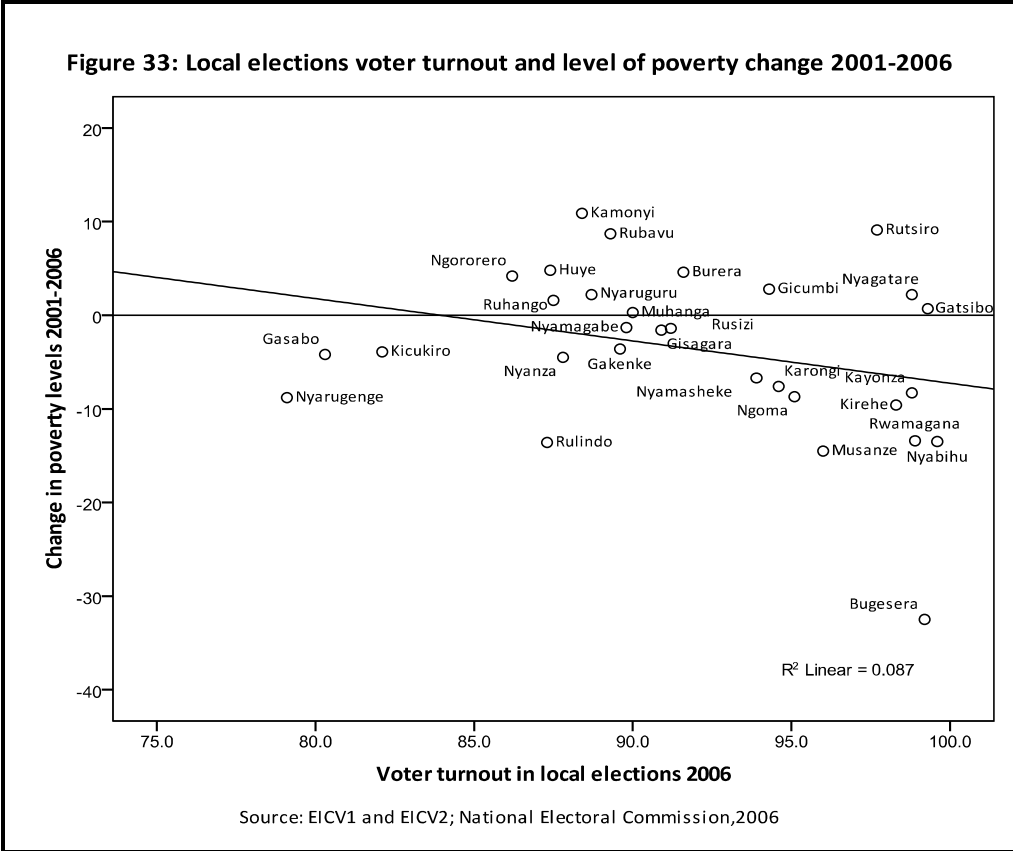
3. Through a study of changes in poverty levels and any link to changes in developmental investment (per capita expenditure on education, health, water and roads) and the number of schools and health facilities per 1000 inhabitants at district level,
4. By considering poverty reduction in relation to the capabilities of district staff in terms of education levels,
5. Finally, I test whether any observed relationships remain once we control for the impact of the genocide legacy on changes in poverty levels.

6.2. Political decentralization and poverty reduction

Political decentralization influences the level to which local people are empowered politically. This is expressed by the way local communities engage themselves in electing their leaders. Can the extent to which local communities in a district participate in electing their leaders explain subsequent poverty reduction in a district? This study attempts to empirically demonstrate the relationship between the level of poverty reduction and decentralization (participation in local elections) by using the EICV1 and EICV 2 survey data to measure changes in poverty. 2006 Voter turnout data from the Nation Electoral Commission will also be used for this purpose.

The test of the impact of political participation on poverty reduction shows that there is weak negative relationship between levels of participation in local elections (as measured in 2006) and the level of poverty change (Pearson's $r=-0.295$). The horizontal line denotes a zero point where there has not been any change in the level of poverty (for our study poverty change is the difference of the percentage of individuals below the poverty line in 2006 and individuals below the poverty line in 2001; positive values indicate that poverty has deepened while

negative values indicate that poverty levels have declined). In this test the district of Bugesera appears to be the significant outlier followed by Rulindo, Nyarugenge, Kamonyi and Rutsiro. The case of Bugesera district is a particular one because of its famine background. For many years the inhabitants of the district faced famine in the dry season (mainly between June and August) causing migration during this period. During this period families leave their homes for other places to look for food and money to ensure their survival. The success with regard to poverty reduction is however explained by the implementation of government measures that seek to ensure that people do not suffer from hunger. Among other measures, local authorities have asked people not to sell their harvests at lower prices and ensured that people keep at least 30% of their harvest for their food and financial security. This measure which was not only implemented in the District of Bugesera but in all districts of the Eastern province was intended to allow local citizens to benefit from their agricultural produce by setting a minimum price for the produce and providing public storage means. From the Figure 33 below it can be seen that 18 out of the 30 districts which show a decrease in poverty also scored well on participation in local elections. Of the 18, only 3 districts had a low score while other scores are between 75% and 85%. Nyarugenge had the lowest percentage of participation in local elections.

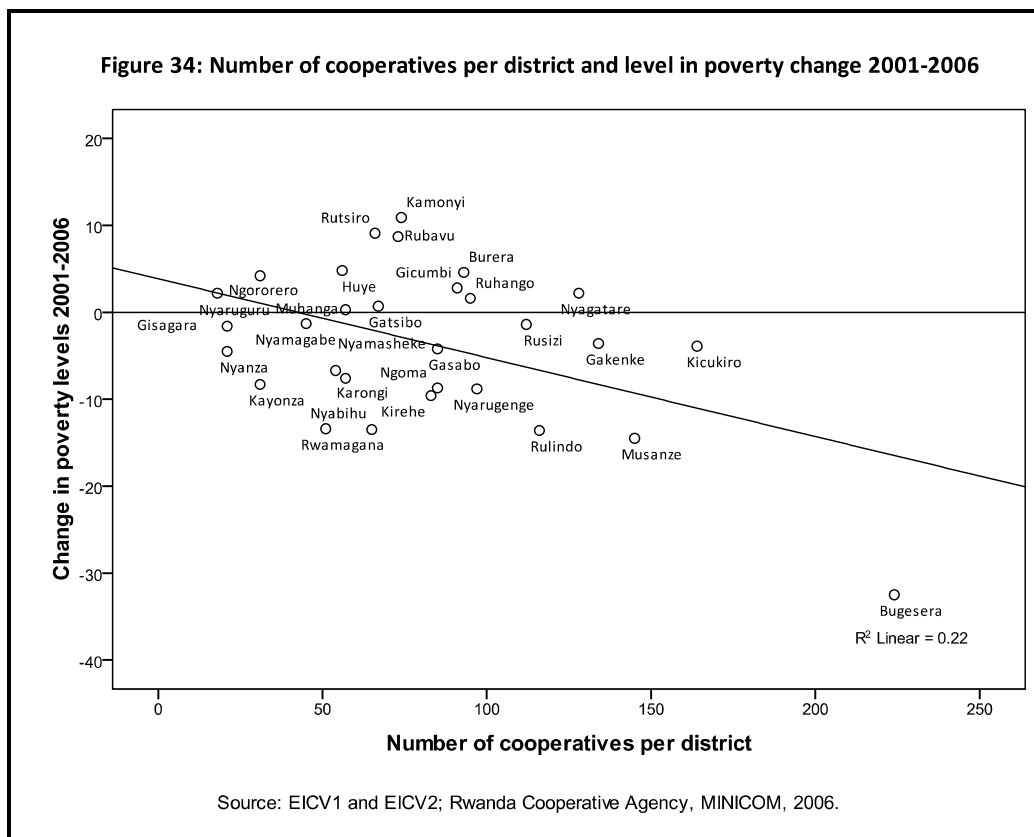


If it can be observed that the majority of districts with a drop in poverty have a higher percentage of participation in local elections, the situation is also evident among those districts that have registered a deepening of poverty. This situation implies that in Rwanda decentralization can be seen to empower local people politically and poverty is not an impediment to political participation. When participation in local elections is correlated with poverty change by location of the district, empirical results indicate that there is a very weak linear relationship in urban (Appendix D) districts (Pearson's $r=-0.160$). This relationship is moderate (Appendix E) and negative in rural districts (Pearson's $r=-0.426$).

Participation in elections is one way people can have a say in the management of the development of their districts. However there are other ways which can help people participate

actively in the development of their districts. Here, the emphasis is on the extent to which individuals engage in activities that are likely to improve their lives and initiate actions that may force local governments to act in accordance with their wishes. In the context of this study particular attention is paid to cooperatives because not only the law on decentralization stipulates (article 7) that districts government should cooperate with cooperatives operating within the district²⁹. Thus decentralization has allowed those communities that have a vibrant social capital to advantage of the policy and make a use of newly empowered local government to reduce poverty. The question to be answered here is whether the extent of cooperative presence affects subsequent levels of poverty in different districts. Here the study attempts to demonstrate empirically the relationship between poverty change and the number of cooperatives in each district using data from EICV2001 and EICV2006 and data from the Rwandan Cooperative Agency to measure poverty change. This test shows a negative, moderate strong correlation between the number of cooperatives per district and the extent of poverty change (Pearson's $r = -0.469$).

²⁹ The government of Rwanda encourages people to group themselves into cooperatives in order to get access to loans. To reach this goal, an agency in charge of promoting cooperatives has been created since 2005. Since then most associations have shifted to the status of cooperatives for accessing advantages proposed by the government.

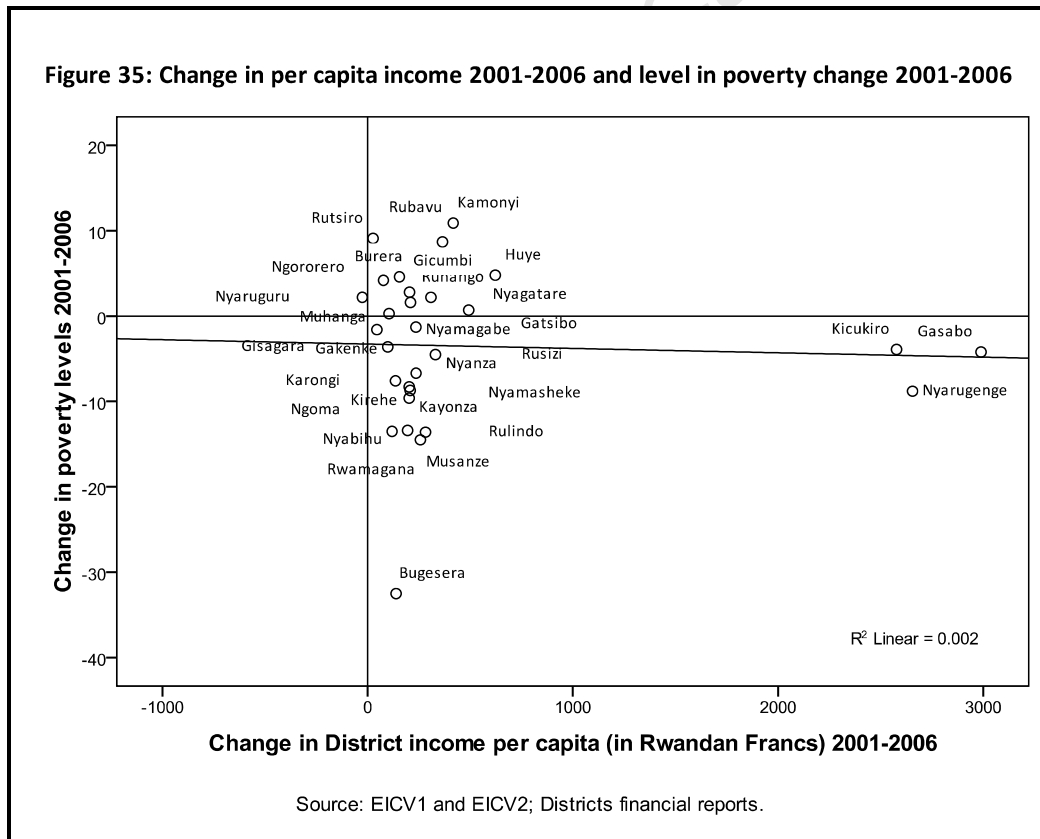


However, when the location of the district is considered, results show that a linear relationship between the two variables is strong (Appendix E) in rural districts (Pearson's $r=-0.650$) and moderately weak (Appendix D) in urban districts (Pearson's $r=-0.116$). The main outliers from this negative moderate relationship are the districts of Rwamagana and Kamonyi. In the district of Bugesera, drop in poverty and the number of cooperatives follow indicate the existence of a relationship between poverty reduction and the number of cooperatives. As it can be seen in the Figure 34 above, the Bugesera district has the highest number of cooperatives and the highest level of poverty change. Rwandans and particularly those in rural areas group themselves in cooperatives for the purpose of improving their wellbeing by insuring mutual support. As they are based on the peoples' daily activities, cooperatives are channels through

which they may bargain for better selling of their produce and help fill the gap which is created by bank conditions and resource availability.

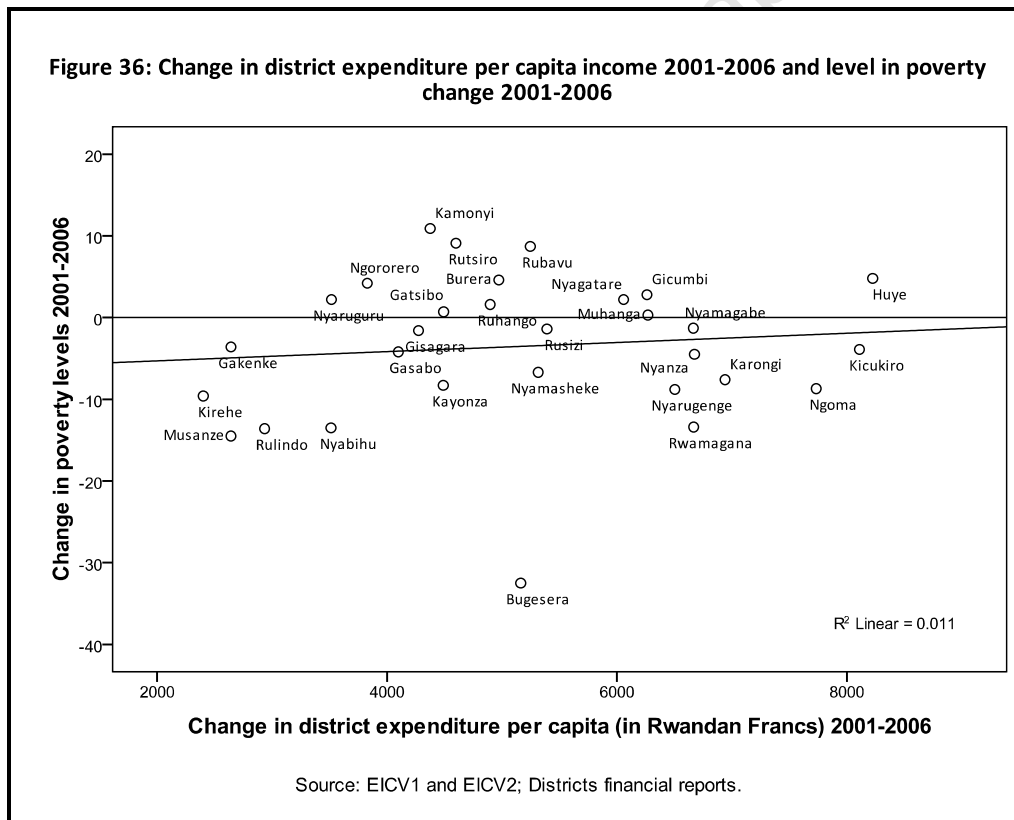
6.3. Resource mobilization and poverty reduction

Resources are important to decentralization. The level of resource mobilization, financial autonomy and capabilities indicate the degree to which the objectives of decentralization can be realized. The question to be investigated here is whether the extent of resource mobilization has affected subsequent changes in poverty. The test shows that changes in district income per capita correlate very weakly and negatively with changes in levels of poverty (Pearson's $r = -0.045$).



When district location is considered (urban or rural) the relationship strengthens very slightly for urban district (Pearson's $r=-0.148$) but remains weak for rural districts (Pearson's $r=0,032$).

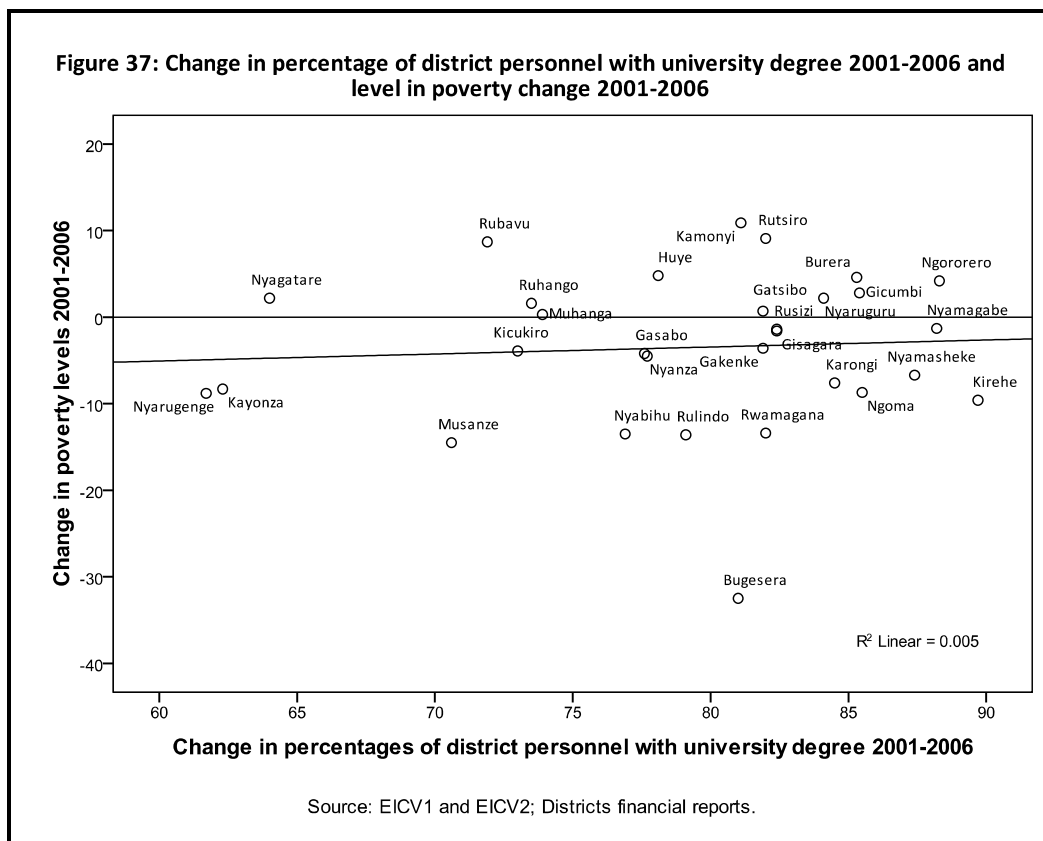
The overall picture indicates that an increase in income per capita of districts in Rwanda does not necessarily imply a decline in poverty levels. Most districts saw their income per capita increase between 2001 and 2006 (Nyaruguru District is the exception because its income per capita has declined), but not all of them registered a drop in poverty. But, what about the impact of expenditure on poverty reduction? The question to be investigated here is whether the extent of the increase in district expenditure per capita would have a subsequent effect on poverty levels using data from the districts' financial reports for expenditure per capita.



In Figure 36 above, the test indicates that the relationship between change in expenditure per capita and change in poverty level is very weak and positive (Pearson's $r=0.103$). In other words, higher levels of expenditure seem to lead to more poverty than reducing it. In urban districts the relationship is weak (Pearson's $r=0.143$) while in rural districts it does not exist (Pearson's $r=0.036$). Between 2001 and 2006 expenditure per capita has increased in all districts. Yet not all of them had a drop in poverty as might have been expected. Some districts which registered a drop in the incidence of poverty (Gakenke, Kirehe, Musanze, Rulindo and Nyabihu) have a low level of change in expenditure per capita; while other districts (Nyamagabe, Kicukiro, Karongi, Nyanza, Nyarugenge, Rwamagana and Ngoma) registered a drop in poverty level and increase in expenditure per capita. This data therefore reveals that an increase in expenditure per capita does not necessarily imply a drop in poverty levels.

6.4. Capacity

Capacity in regard to government personnel is of great importance particularly in planning, monitoring and execution of development activities. A district with competent personnel may be expected to register successful execution of development programmes. I sought to find out if higher levels of education of district staff (which resulted from decentralization) may explain differences in poverty change in the districts of Rwanda. I used data from district offices to ascertain the level of education of district staff.



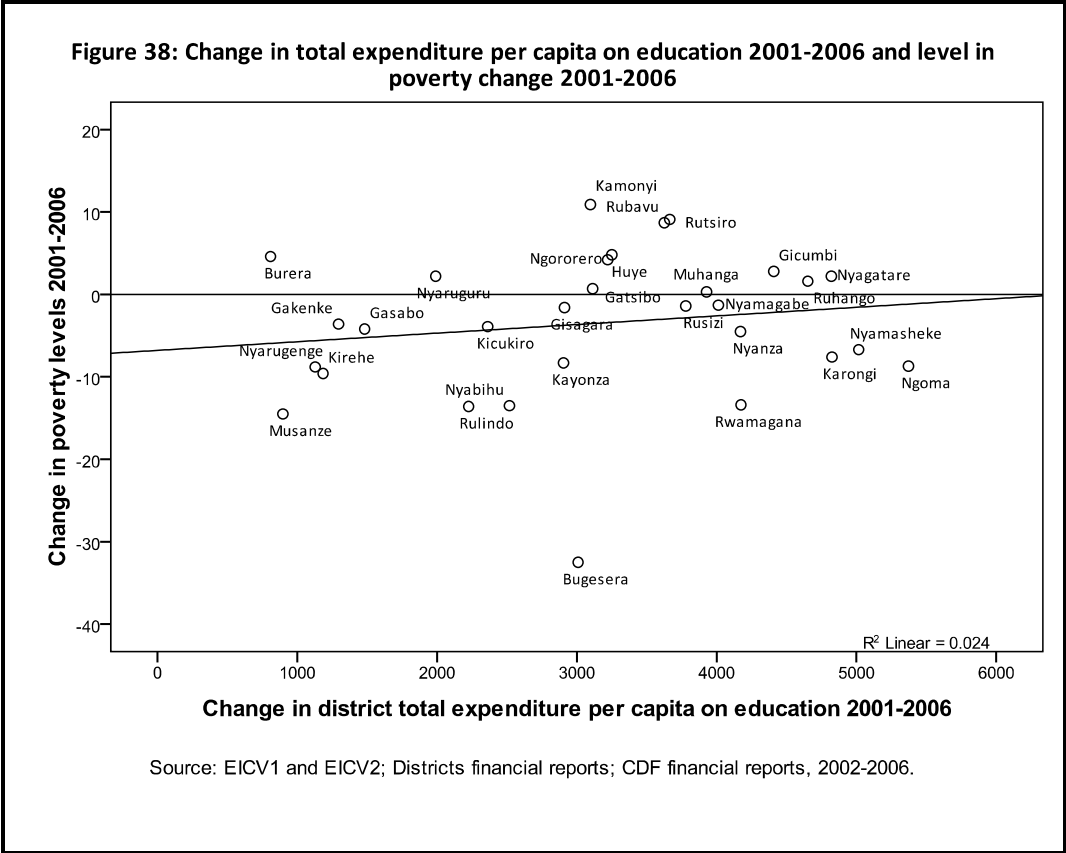
The test shows that a very weak positive correlation exists between the level of education of district staff and the level of poverty change (Pearson's $r=0.068$). However, while change in personnel with a university degree correlates very weakly with change in poverty levels in urban districts (Pearson's $r=-0.053$), in rural districts, the relationship is higher but still positive for urban districts (Pearson's $r=0.228$). Besides Kayonza, Nyarugenge and Nyagatare districts, which have a low percentage of personnel with university degrees, the rest of the districts which had a fall in poverty levels have a high percentage of personnel with degrees (between 70% and 90%).

6.5. Developmental investment and poverty reduction

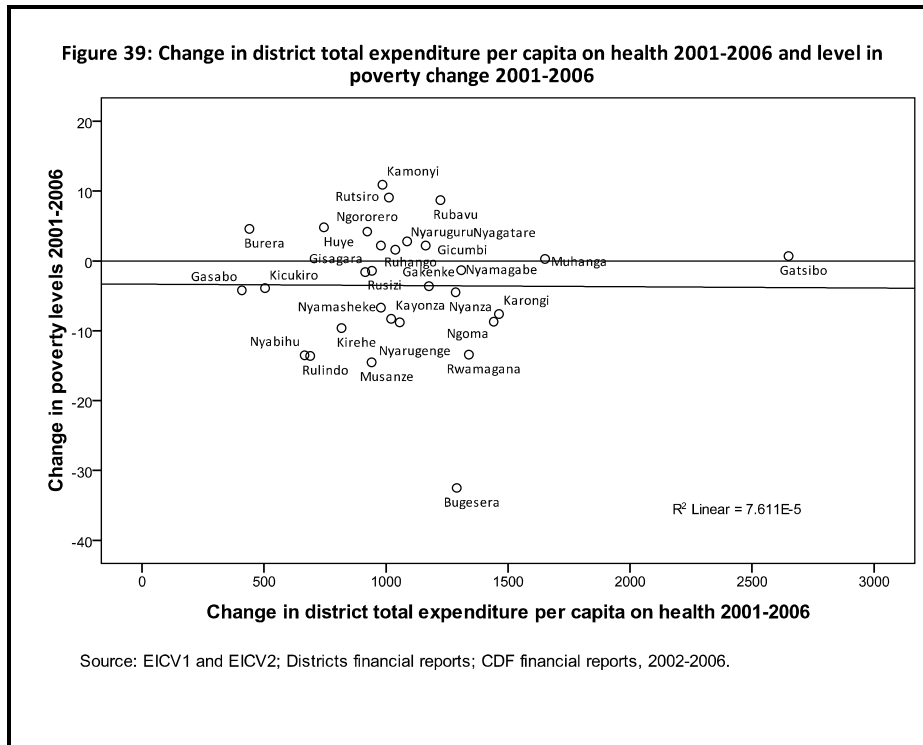
6.5.1. Per capita expenditure on education, health and roads

Investment in social development infrastructure (schools, health and roads) should reduce poverty as it paves the way for more opportunities for people. This study intends also to explore the linkage between change in poverty and investment in social infrastructures per capita. The question to be investigated here is whether investment in social infrastructure affects subsequent changes in poverty levels. I use data from the EICV 2001 and EICV2006 surveys for changes in poverty levels and data from district budget finance reports and CDF finance reports.

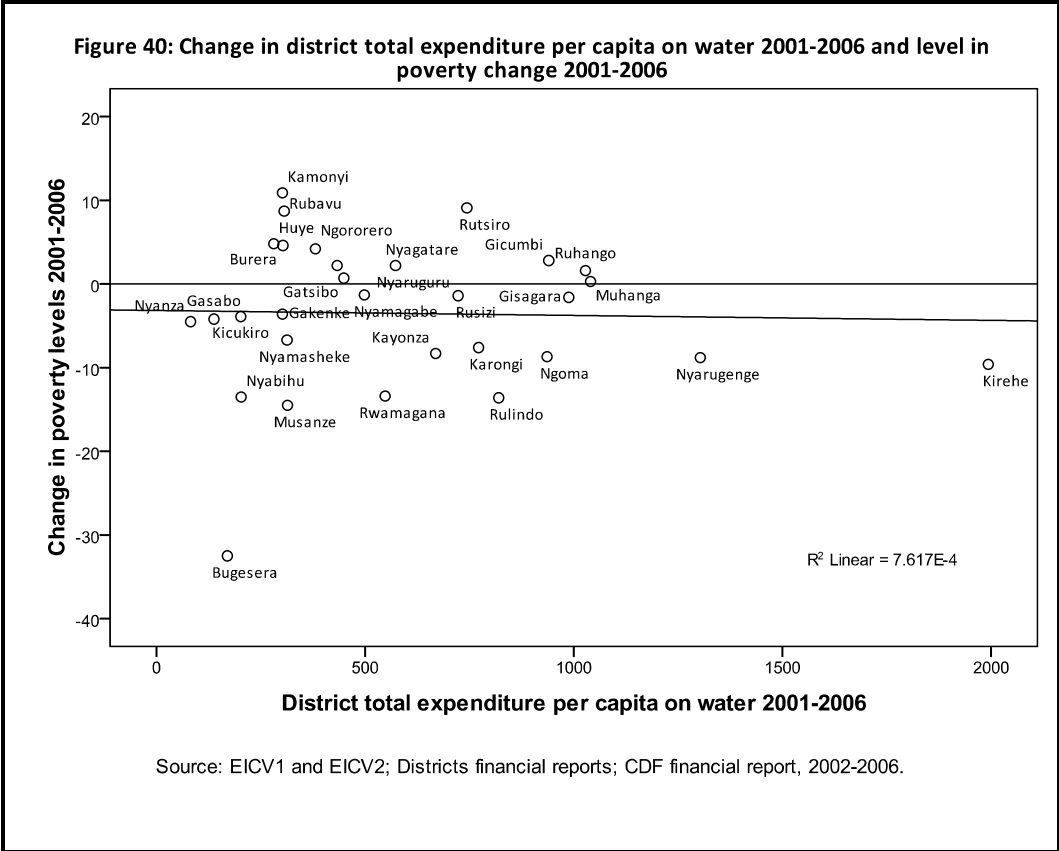
In the Figure 38 below, poverty change is positively correlated with total expenditure per capita on education from 2001 to 2006, but weakly (Person's $r=0.155$). This suggests that high expenditure on education may not necessarily lead to poverty reduction particularly in a short period 2001-2006. In urban districts expenditure on education and change in poverty levels correlate (Appendix D) more strongly, but still positively (Pearson's $r=0.315$) while the relationship is non-existent (Appendix E) in rural districts (Pearson's $r=0.017$).



Using the same data sources, I correlate per capita expenditure on health with changes on poverty. The empirical results as presented in the Figure below indicate that there is no linear relationship between the two variables (Pearson's $r=-0.009$). In order to see whether the area of location would affect subsequent changes in poverty levels, a test to check for correlation between the two variables was run. Empirical results suggest that per capita expenditure on health correlates very weakly and negatively with changes in levels of poverty in urban districts (Pearson's $r=-0.072$), while in rural districts the correlation is almost non-existent and negative (Pearson's $r=-0.012$).

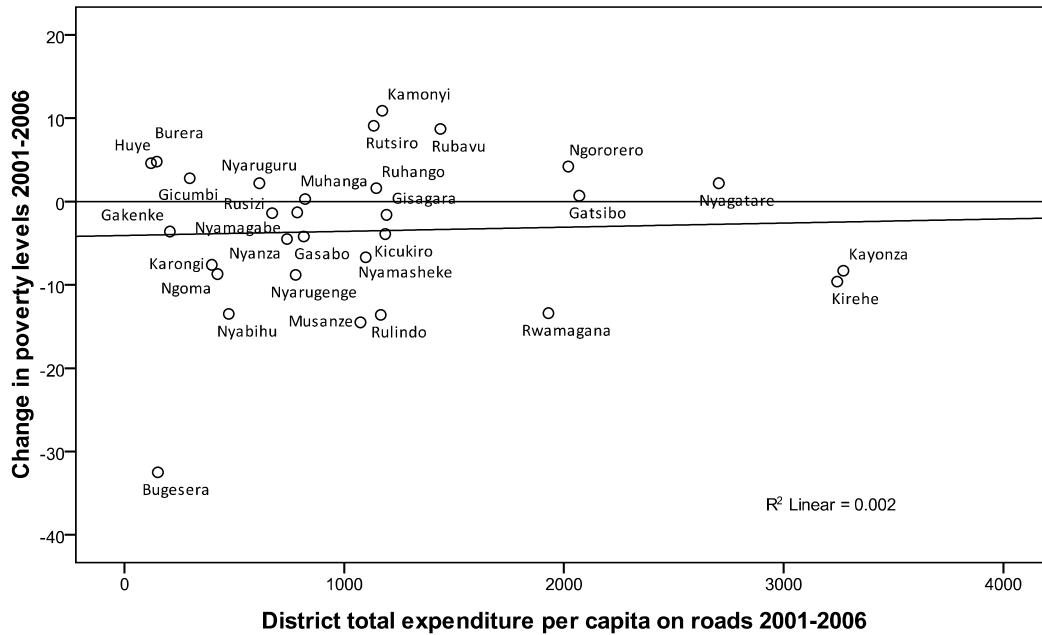


Another element which falls in the development investment category is expenditure on water. The question here is whether the level of per capita expenditure on water affects subsequent changes in poverty. Here, I use data from district and CDF financial reports. Again, this test shows that per capita expenditure on water does not correlate (Pearson's r is very weak and negative -0.028) with changes in levels of poverty. This implies that spending more on water does not improve the poverty status in districts. With regard to whether the district is rural or urban, the empirical results show that in rural districts the linear relationship between per capita expenditure on water and change in poverty levels is non-existent (Pearson's $r=-0.006$) while in urban districts the two variables correlate very weakly and negatively (Pearson's $r=-0.073$).



Another aspect analyzed under developmental investment is per capita expenditure on roads. Here the question is whether per capita expenditure on roads affects subsequent levels of poverty. Again using the same sources of data, empirical results, as shown in the Figure below, demonstrate that the linear relationship between these two variables is almost non-existent (Pearson's $r=0.047$). The linear relationship between these two variables does not change if the district is rural or urban.

Figure 41: Change district total expenditure per capita on roads 2001-2006 and level in poverty change 2001-2006



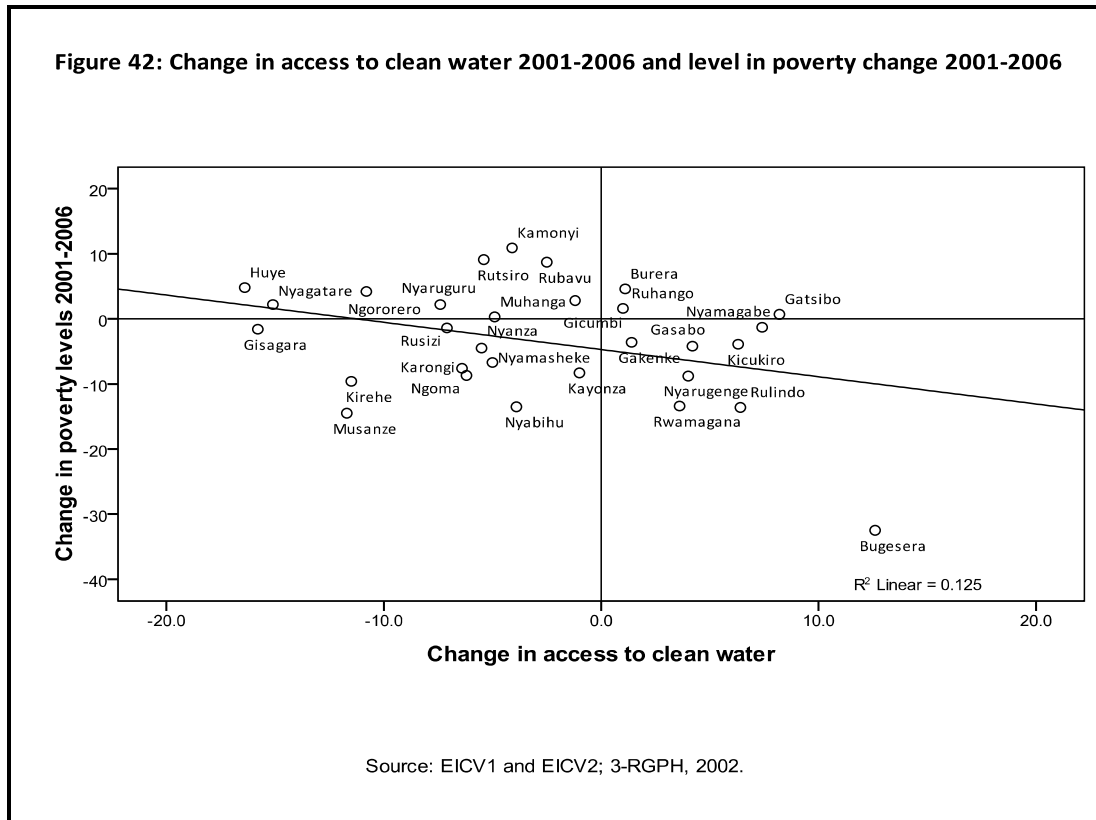
Source: EICV1 and EICV2; Districts financial reports; CDF financial report, 2002-2006.

This status may be due to the fact that the amount allocated to roads is still very low. Maintaining roads is very expensive and the roads are difficult to use during the rainy season because of the physical geography of the country. Thus increased expenditure on the road infrastructure has little impact on poverty reduction.

6.5.2. Access to water

Access to clean water is included because it among services to be delivered by local government. In contrast to previous, access to clean water correlates moderately and negatively with changes in poverty levels (Pearson's $r=-0.353$) over the period 2002 and 2006. The main significant outlier is Bugesera which has an increase in poverty level. The relationship between these two variables is very weak in urban districts (Pearson's $r=0.163$) but much

higher in rural districts (Appendix E) these two variables are moderately correlated (Pearson's $r=-0.481$).



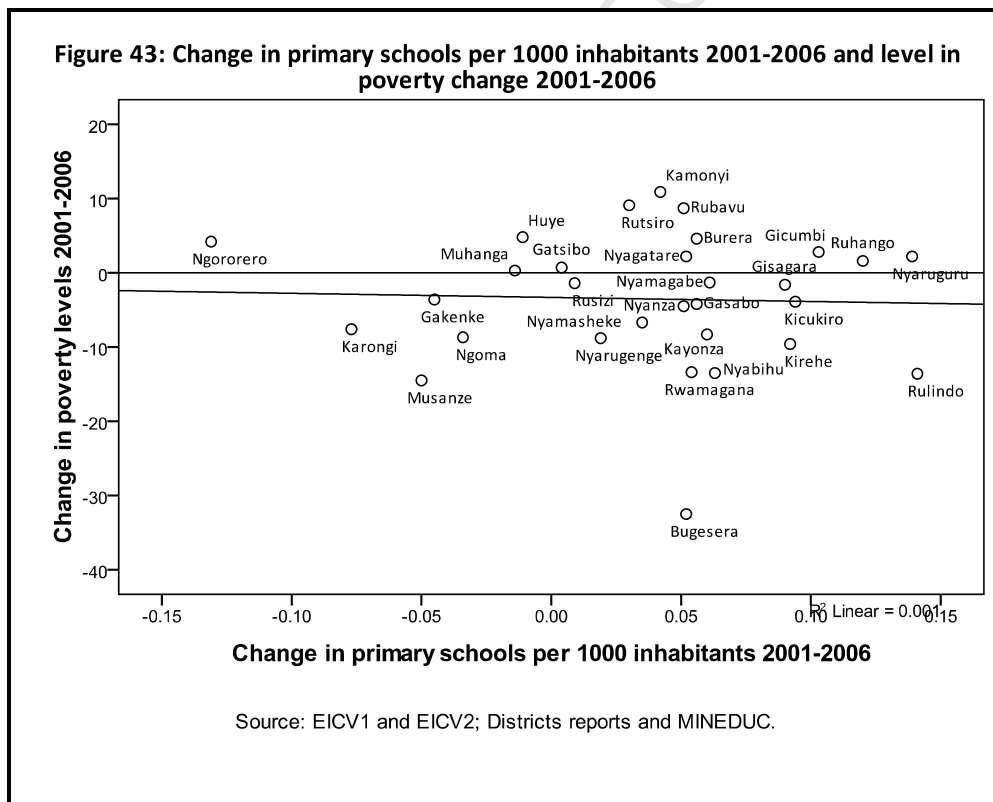
The r^2 displayed in the above Figure indicates that about 13% of the variations in poverty reduction are explained by an increase in access to clean water. In rural areas especially access to clean water makes a difference in contributing to poverty reduction. Fetching water is time consuming in rural areas and this has a negative impact on poverty reduction. Thus improving access to clean water does not only ensure health but it also supports poverty reduction.

6.5.3. Availability of education infrastructures

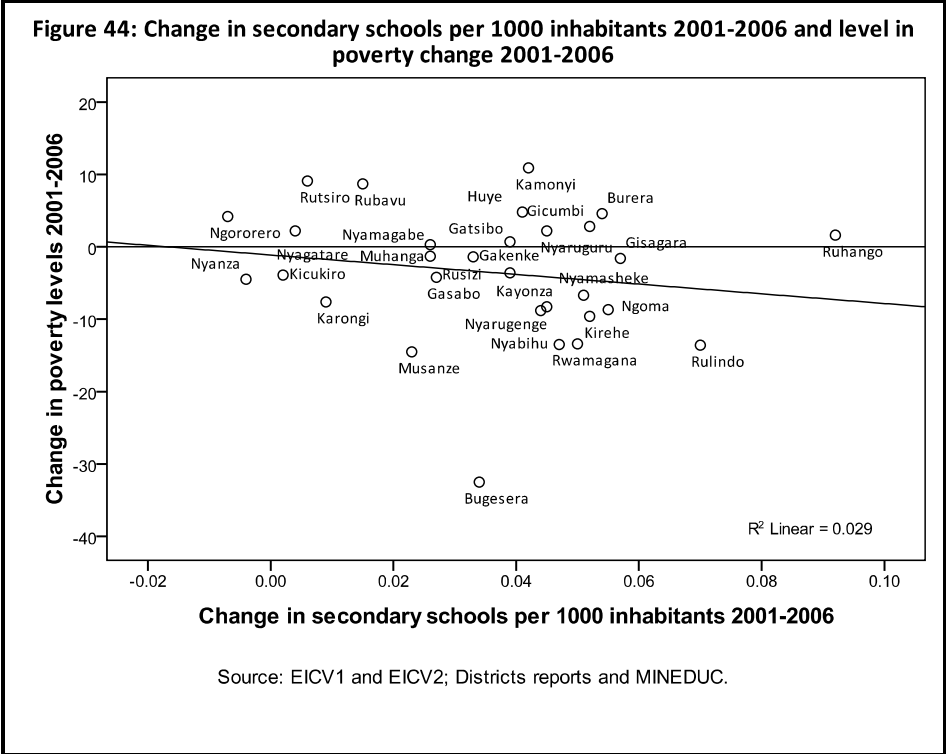
The availability of education should give individuals more opportunities and knowledge and ultimately reduce poverty. In this study, I asked whether the extent of change in availability

of schools (primary and secondary) brought about subsequent changes in poverty levels in districts using data obtained from the Ministry of education for the number of schools in each district, this study attempts to empirically demonstrate the relationship between these two variables.

The results of the test indicate that change in availability of schools or the number of schools correlates weakly with the level of poverty change. Overall changes in the availability of primary schools do not correlate (Pearson's $r=-0.039$) with changes in poverty levels. However, in urban districts the availability of primary schools per 1000 inhabitants (Appendix D) correlates moderately strongly, but positively (Pearson's $r=0.408$) with the level of change in poverty. However, in rural districts the relationship is weak but negative (Pearson's $r=-0.264$).



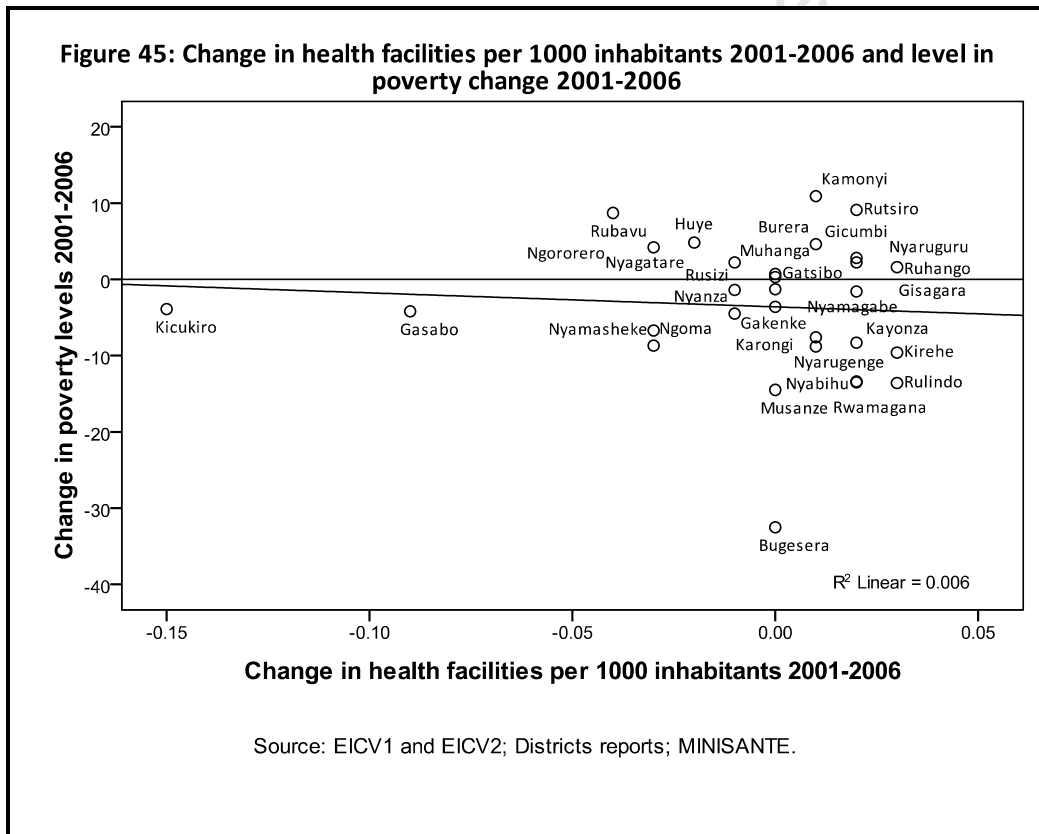
The overall correlation between change in the number of secondary schools per 1000 inhabitants and the change in poverty level is weak but negative (Pearson’s $r=-0.171$). In rural districts, the correlation (Appendix E) between these two variables is stronger (Pearson’s $r=-0.314$) while it does not exist in urban districts. Therefore, building schools in rural areas seem assisting in poverty reduction.



6.5.4. Availability of health facilities

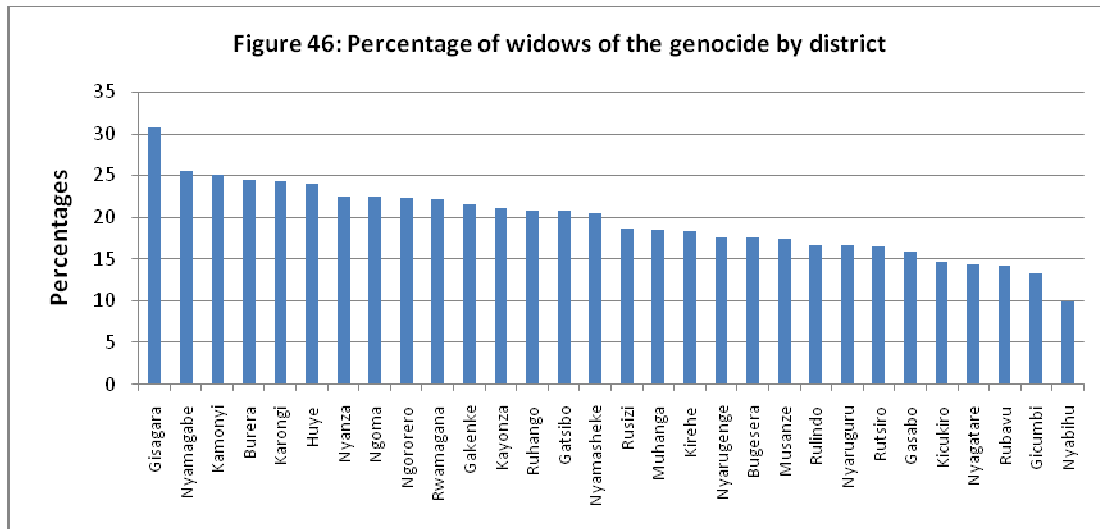
The availability of health infrastructure is crucial in ensuring individual’s health and providing guarantee of rapid recovery from illnesses. By offering health care to people, the availability of health care facilities provides guarantee of the productivity of individuals. Long period of illnesses has a negative implication on people’s productivity and therefore on the overall socioeconomic situation of the households. As a consequence the whole socioeconomic

situation of the district is likely to be affected. This section attempts to explore the link between the availability of health facilities and changes in poverty levels. Here the question which will guide this investigation is whether the extent of health facilities affects subsequent changes in poverty. The relationship between the two variables is demonstrated empirically by using data from the EICV 2001 and EICV 2006 surveys for changes in poverty levels and data from the Ministry of health for the number of health facilities in the districts. The results from the test show that there is a very weak correlation between availability of health facilities (number of health facilities per 1000 inhabitants) and change in poverty levels (Pearson's $r=-0.077$). The relationship remains very weak in both rural and urban districts.



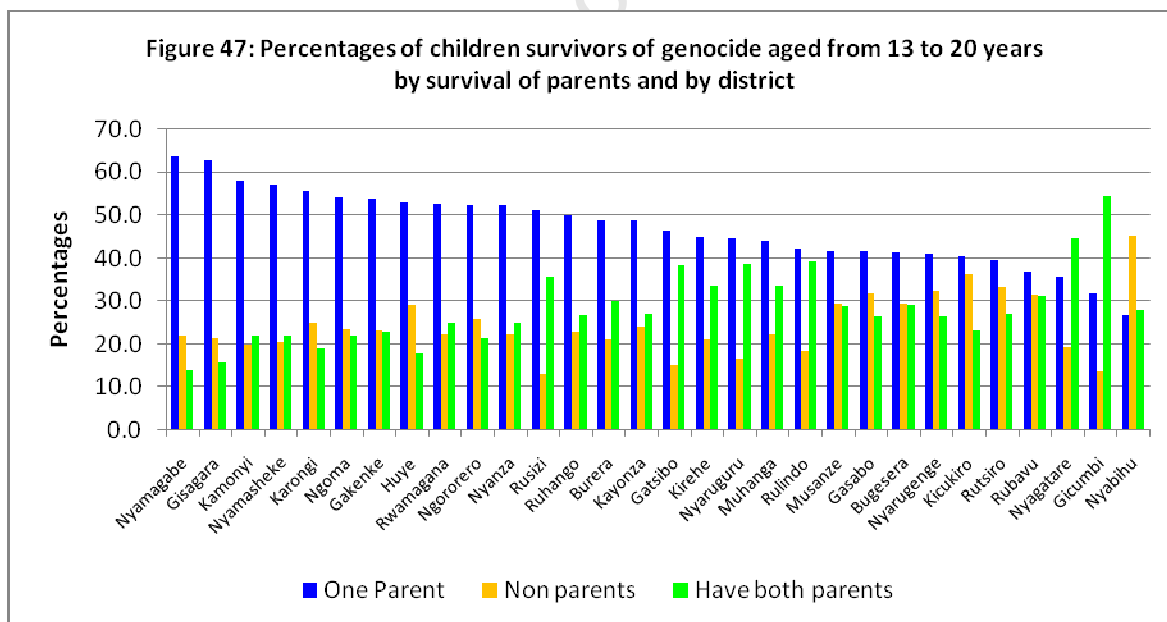
6.6. The legacy of genocide

As mentioned earlier in section 2.2.1.4 of chapter 2, ethnic conflicts and civil wars is another cause of poverty. In Rwanda, the 1994 genocide deepened poverty among Rwandans who were already suffering since the 1980s when the price of coffee fell on the international market. The genocide destroyed the country's infrastructure and left behind a broken society with many challenges. Those who were mostly affected are widows and children. This category of the population is forced to assume responsibilities that were otherwise meant for men and adults in the Rwandan society. Children became heads of households and women became responsible for sustaining their families. But with low levels of education or no education at all, they could not get well paying jobs. All these genocide consequences still constitute an impediment to development though significant improvement has been made in dealing with some of them. In this study, attention is given to the impact of the presence of widows and orphans of the genocide on changes in the poverty levels. The question this study aims at investigating is whether the presence of widows and orphans of the genocide may constitute third variable to the relationships already found. This would therefore help assess whether poverty reduction in Rwanda is a result of a simple recovery from the holocaust of 1994. The investigation is undertaken by contrasting the change in poverty levels with the percentage of widows in each district on one hand and the percentage of orphans of the genocide on the other hand. The Figures below show the distribution of widows and orphans of genocide by district.



Source: Minaloc et Minecofin : Recensement des Rescapes du Génocide de 1994, 2008.

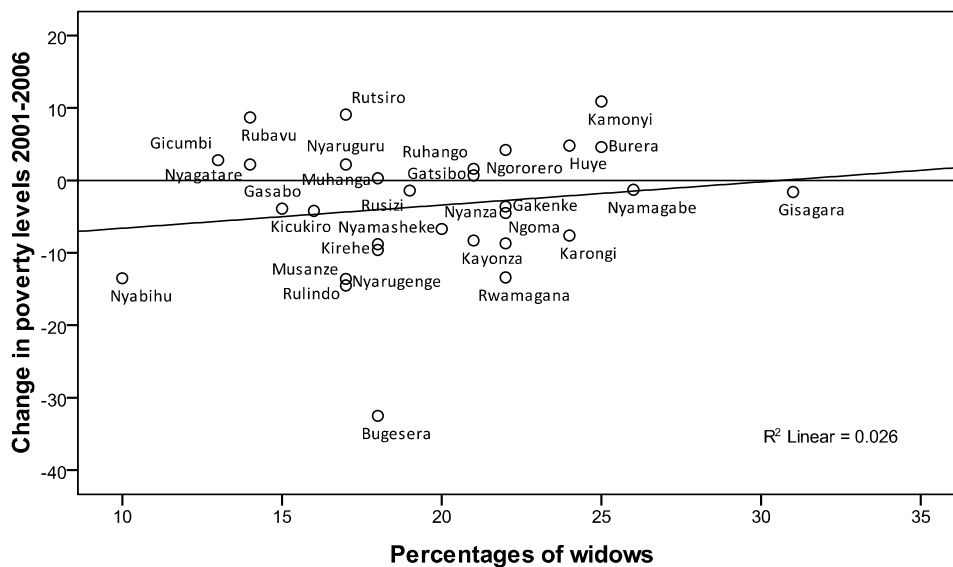
Districts with a high percentage of genocide widows are Gisagara, Nyamagabe, Burera, Huye, Kamonyi, Karongi, Ngoma, Ngororero, Nyanza, Ruhango and Rwamagana. The lowest percentage is located in Nyabihu district and Gicumbi.



Source : Minaloc et Minecofin : Recensement des Rescapes du Génocide de 1994, 2008.

The districts with a high percentage of orphans are Nyabihu, Rutsiro, Rubavu, KicukiroGasabo, Nyarugenge and Bugesera. The lowest percentages are observed in the districts of Rusizi, Gatsibo, Gicumbi and Nyaruguru. However, the percentage of orphan survivors of genocide is high in districts of Gisagara, Nayamagabe, Kamonyi, Nyamasheke, Ngoma, Karongi, Gakenke, Ngororero, Nyanza, Ruhango, and Rwamagana. The districts with the lowest percentage are Nyabihu and Gicumbi. These categories are among the vulnerable groups and become so because of the loss through genocide of those who were supporting families. Thus the genocide has also contributed to the deterioration of well-being among Rwandans. Given this situation, after running a correlation of decentralization variables that are likely to impact on poverty changes, it is necessary to run a correlation using data on widows and orphans of the genocide in order to examine whether poverty reduction is a result of decentralization or it is a simple recovery from the 1994 genocide. With regard to widows, the test indicates that the relationship between the presence of widows of the genocide and changes in poverty levels in a given district is weak (Pearson's $r=0.160$). The relationship differs between rural and urban districts. In urban districts (Appendix D) the relationship is negatively stronger (Pearson's $r=-0.260$) while in rural districts (Appendix E) it is moderately stronger (Person's $r=0.410$).

Figure 48: Percentages of widows of genocide and level in poverty change 2001-2006

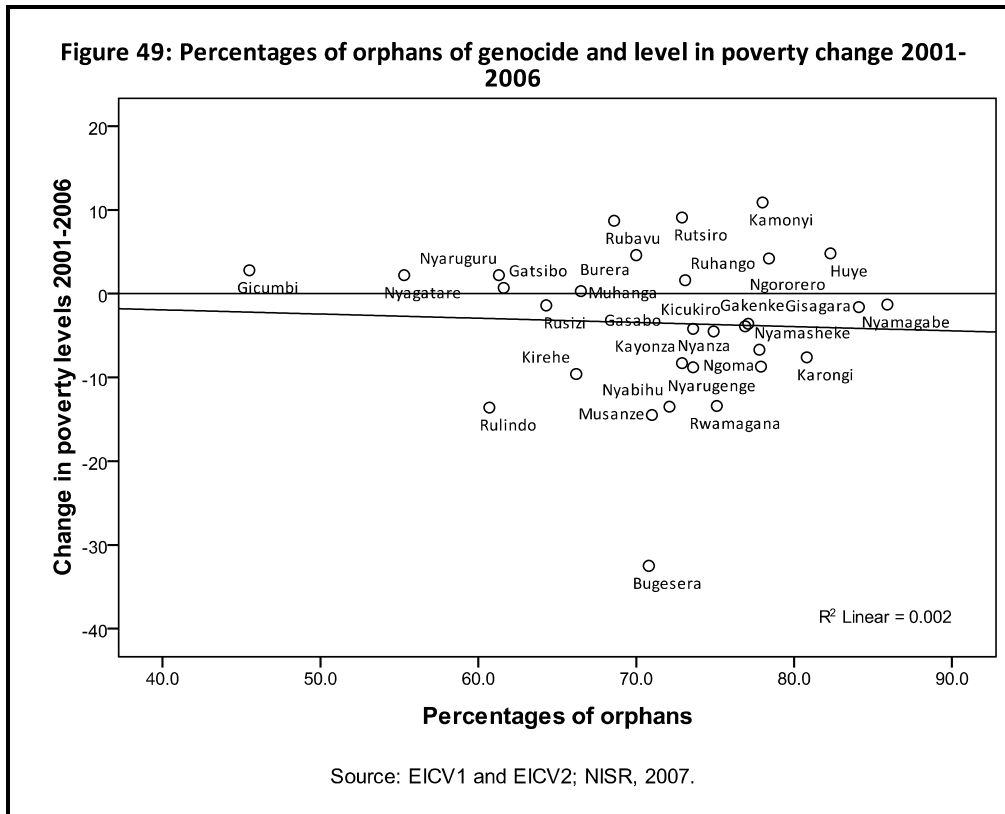


Source: EICV1 and EICV2; NISR, 2007.

Some districts (Kamonyi, Huye and Burera) which have fallen into poverty between 2001 and 2006 have a high percentage of widows while others (Rubavu, Gicumbi and Nyagatare) which are in the same category have a low percentage of widows of the genocide. This is an indication that although the genocide was carried out across the country some districts have been more affected than others.

Concerning the presence of orphans of the genocide the test indicates that the relationship between changes in poverty levels and the percentage of orphans of the genocide is weak and negative (Pearson's $r=-0.049$). The relationship remains weak for urban districts (Pearson's $r=-0.322$) and very weak for rural districts (Pearson's $r=0.196$). Bugesera remains the main outlier. The r^2 displayed in the Figure below signifies that only 0.2% of the variation in poverty levels is

explained by the percentage of orphans of the genocide in the affected districts. Thus, the impact of this factor was found to be very low.



The impact of the presence of orphans on poverty levels vary according to the location of the districts. This can be explained by the fact that in urban districts orphans are more likely to get assistance while those in rural districts are not. Also in rural areas most orphans have access to means of production (land previously owned by their parents), while in urban areas many orphans do not have any means of livelihood. They are forced to rely on aid if they cannot work and this has an impact on the economy of the concerned districts.

To be sure that all key variables continue to explain collectively the impact of decentralization on poverty reduction, a multiple regression was run. The adjusted R square indicate that this

model account for -0.031. The ANOVA shows that the overall significance of the model is $p=0.547$ and $F=0.941$. The model indicates that voter turnout, number of cooperatives and access to water remained high with respectively -0.480, -0.363 and -0.222. However, orphans and district income per capita have higher score (-0.454 and -0.222) in the model while they scored low on the r (see Appendix F). When the location is considered, cooperatives, widows and access to water still remains best of poverty reduction in urban districts. In rural districts, change in health facilities, cooperative and change in secondary schools seem to contribute much in poverty reduction (see Appendix F).

6.7. Conclusion

The hypothesis postulates that decentralization and poverty are related. The statistical analysis has confirmed that few dimensions of decentralization correlate with changes in poverty levels. Only participation in local elections (as measured in 2006) ($r=-0.295$), the number of cooperatives per district ($r=-0.469$) and access to water ($r=-0.353$) correlate moderately with changes in poverty levels. The rest of the tested variables have a correlation which is weaker and close to zero.

The correlation between variables related to decentralization and changes in levels of poverty suggests that decentralization (as a way of empowering people politically and as a tool of service delivery improvement) may help reduce poverty but not all actions undertaken by decentralized entities would necessarily lead to poverty reduction. Some of their activities would have an effect after a certain period. Some empirical results, as presented in this chapter, support the view that decentralization can reduce poverty. However, poverty

reduction can be explained by other factors, such as those likely to generate income, for example access to the means of production.

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CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

The implementation of decentralization for the purpose of poverty reduction in Rwanda has seen mixed results. Those districts that have gone furthest in terms of administrative, political and fiscal decentralizations have managed to reduce poverty. On the other hand, other aspects of decentralization have had little or no measurable impact. Based on those results, the following conclusions can tentatively be drawn:

- The study has not covered all aspects related to the analyzed topic; however, the author has tried to examine key aspects related to impact of decentralization on poverty reduction in Rwanda.
- On the question of whether decentralization, conceptualized as a process of political empowerment and as a means of dispersing responsibility and authority, assists poverty reduction, It has been argued that better implementation of decentralization is more likely to contribute to poverty reduction in Rwanda. More extensive implementation of decentralization creates an enabling environment for empowerment and economic opportunities for local communities.
- The analysis of the results on the impact of decentralization on poverty reduction in Rwanda over the period 2001 to 2006 was made by comparing results across all 30 districts of Rwanda. The use of measures that can be replicated enabled the test of the hypothesis. This analysis may open the way for further academic research and provides for formulation of decentralization recommendations with regard to poverty reduction.

Methodological Soundness

A longitudinal research design involving a study of all 30 districts of Rwanda from 2001 and 2006 was developed. The inclusion of all 30 districts enabled the researcher to test for correlations in order to demonstrate covariance between different dimensions of decentralization as measured in this study (those related to resource mobilization, participation, development investments, capacity and genocide legacy) and their potential influence on changes in poverty.

The dependent variable was reframed as change in poverty level. This variable was obtained by subtracting the percentage of individuals indicated as living below the poverty line in 2001 from the percentage of individuals living below the poverty line in 2006. Poverty calculations are based on a food basket of commodities sufficient to provide 2500kcal per adult and non-food basic commodities. In this view, an individual is poor if his income does not allow access to both this amount of food and certain non food commodities (for Rwanda the poverty line is set at 64 000frw). In this study the policy of decentralization was held constant. It attained the entire country equally. What differed, however, was the degree of implementation. Four major variables were used to measure its impact on poverty reduction: resource mobilization was measured by income per capita (tax income and government transfers) and expenditure per capita; participation was measured by the voter turnout in local elections and the number of cooperatives established; development investment was measured by per capita expenditure on education, health, water and roads, and by the availability of school and health infrastructure; capacity was measured by the level of education of district staff and the legacy of genocide was

measured by the percentage of orphans and widows in each district. Data on these key variables was gathered from district financial reports, EICV2000/2001 and EICV2005/2006 surveys, reports from the Ministry of Education, Ministry of Health and Ministry of Commerce, the 2002 census and the 1994 census of genocide survivors.

Decentralization may contribute to poverty reduction because of its unique capacity to effectively address local issues and satisfy local needs. Decentralization offers political space and opens opportunities for local communities.

Empirical findings

Testing of the hypothesis revealed that the level of voter turnout as an indication of political decentralization is related weakly and negatively to poverty levels. This test also revealed that the relationship between the level of voter turnout and change in poverty levels is moderately strong and negative in rural districts.

Also, the test of the hypothesis revealed that the number of cooperatives in districts is correlated moderately strongly and negatively with subsequent changes in poverty. It was also observed that, the correlation is more strong in rural than in urban districts. This is a strong indication that access to social capital is an ingredient in poverty reduction and thus this confirms the theory of Putnam.

The test of the hypothesis in relation to district government income and expenditure per capita revealed that these two variables are not very strongly related to subsequent levels in poverty change; and if there is a relationship, it is a weak one. This may be an indication that incomes are not necessarily spent on activities that may have a direct impact on poverty reduction. The

level of income being low, most income is spent on current activities (Salaries, office equipment, etc.).

When testing the hypothesis of local government capacity related to the level of education of district staff, empirical results show that the relationship is weak and moderately weak; however it is strong in urban districts. The test of the hypothesis indicates that expenditure per capita on education, health, water and roads correlate very weakly with change in poverty levels. The relationship between per capita expenditure and poverty reduction is moderately weak and positive in urban districts.

It was also found that increased access to water correlated moderately strongly and negatively with change in poverty levels and relationship is strong in rural districts.

The empirical test indicates that the availability of facilities such as primary and secondary schools is weakly related to the level of change in poverty. The relations are however moderately weak in urban districts for primary schools, and moderately weak and negative in rural districts for secondary schools. The relationship remained very weak for the link between changes in poverty and access to health facilities.

Recommendations

This analysis is systematic and transparent; it can therefore be replicated for it is reliable. Using indicators accepted widely, other researchers can undertake similar studies in different countries using different time periods. However there are limitations that need to be addressed to enhance further research.

- The major limitation is related to the definition of indicators and subsequent data on how to measure decentralization. This study largely utilized data from official government reports and offices. However these are not sufficient to measure the impact of decentralization on poverty reduction.
- Also in a short period of 5 years, major changes may not occur. A more comprehensive study using data collected through a specific questionnaire over a greater period of time and including more well defined indicators would be conducive to more conclusive results.
- From empirical evidence, it has been shown that the contribution of decentralization to poverty reduction has not been as extensive as expected; this is an indication that slow poverty reduction in Rwanda could be a result of a normal trend as defined by the macroeconomic status of the country in general and recovery from the 1994 genocide in particular. This leads to the recommendation that the government of Rwanda and development partners should focus not only on pro-poor policies but also on policies that support community participation in individual poverty reduction projects. This would help decentralization to reach the goal of reducing poverty within local communities.

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APPENDICES

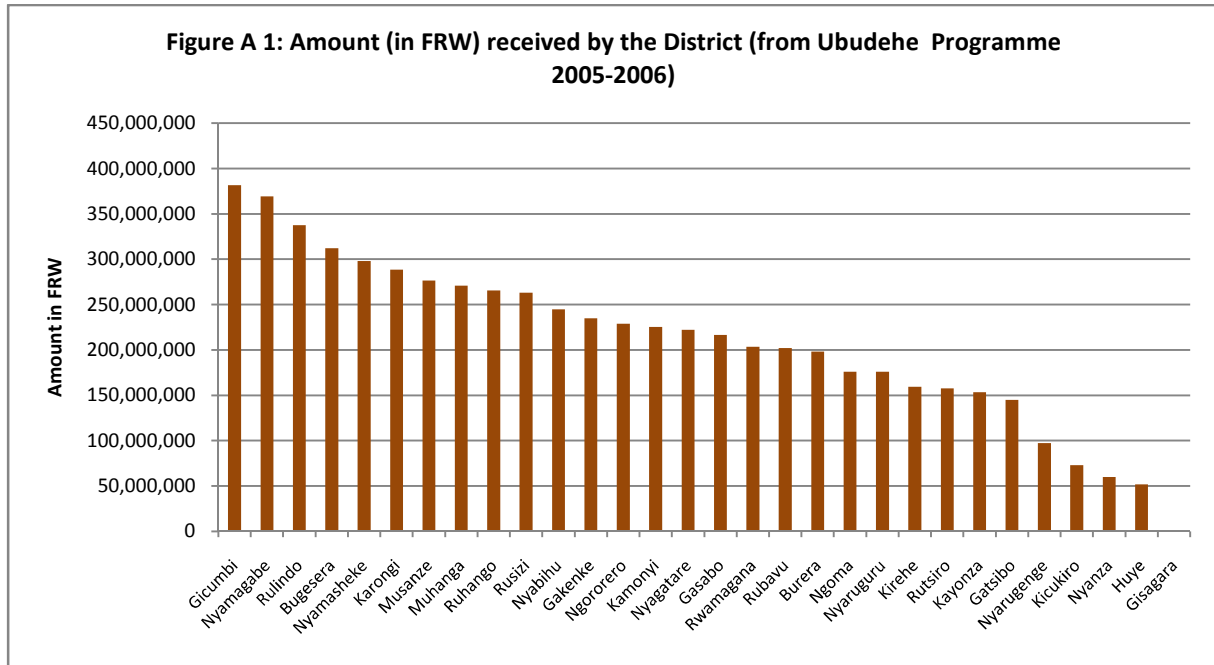
**APPENDIX A: Projects financed by the *Ubudehe* Programme 2005-2006 and Amount (in FRW)
received by the District**

Table A 1: Projects financed by the *Ubudehe* Programme 2005-2006

| Projects | Est | West | North | South | Kigali City | Rwanda | % |
|-------------------------|------|------|-------|-------|-------------|--------|-----|
| Animal husbandry | 1740 | 1621 | 1451 | 1205 | 317 | 6334 | 75 |
| Drinking water | 15 | 131 | 92 | 126 | 23 | 387 | 5 |
| Agriculture | 11 | 81 | 63 | 169 | 5 | 329 | 4 |
| Roads | 9 | 49 | 75 | 144 | 11 | 288 | 3 |
| Classrooms | 83 | 95 | 74 | 24 | 2 | 278 | 3 |
| Radical terraces | 0 | 21 | 2 | 149 | 0 | 172 | 2 |
| Community health scheme | 0 | 95 | 57 | 18 | 0 | 170 | 2 |
| Microfinance | 10 | 8 | 61 | 49 | 8 | 136 | 2 |
| Multipurpose homes | 12 | 22 | 62 | 6 | 15 | 117 | 1 |
| Petty business | 35 | 18 | 14 | 4 | 40 | 111 | 1 |
| Mills | 13 | 13 | 11 | 8 | 2 | 47 | 0.4 |
| Storage Silos | 7 | 5 | 7 | 8 | 0 | 27 | 0.3 |
| Electricity | 0 | 24 | 0 | 0 | 1 | 25 | 0.3 |
| Handcrafts | 2 | 1 | 1 | 2 | 6 | 14 | |
| Tree nurseries | | 0 | 1 | 9 | 2 | 12 | |
| Modern jikos | 0 | 1 | 2 | 0 | 1 | 4 | |
| Reforestation | 0 | 4 | 0 | 0 | 0 | 4 | |
| Dugouts | 1 | 1 | 1 | 0 | 0 | 3 | |
| Cultural troupes | 0 | 0 | 0 | 0 | 1 | 1 | |
| Public secretariat | 0 | 0 | 0 | 0 | 1 | 1 | |
| Public phone "Tuvugane" | 1 | 0 | 0 | 0 | 0 | 1 | |
| Total | | | | | | 8462 | 99 |

Sources: Republic of Rwanda, Programme Ubudehe, Devis Programme No 1 (période 2005-2006), Septembre 2007 and CDF Annual report 2006.

Figure A1: Amount (in FRW) received by the District (*Ubudehe* Programme 2005-2006)



Source: MINALOC and EU, Programme *Ubudehe*, Devis Programme No1 (Période 2005-2006), Rapport d'activités 2006.

Table A2: Amount (in FRW) received by the District (*Ubudehe* Programme 2005-2006)

| District | Total expenditure 2006 | Total expenditure 2001,2002,2003 and 2006 | Amount (in FRW) received by the District | % of ubudehe fund transferred to districts compared to 2006 expenditure | % of ubudehe fund transferred compared to 2001, 2002, 2003, 2006 expenditure |
|--------------|------------------------|---|--|---|--|
| Bugesera | 1,455,429,486 | 1,848,275,054 | 311,944,920 | 21.4 | 16.9 |
| Burera | 1,655,790,596 | 2,000,433,783 | 198,242,408 | 12 | 9.9 |
| Gakenke | 945,936,551 | 1,451,060,897 | 234,919,857 | 24.8 | 16.2 |
| Gasabo | 1,491,878,783 | 2,695,794,357 | 216,618,631 | 14.5 | 8 |
| Gatsibo | 1,351,336,065 | 1,738,547,814 | 145,001,248 | 10.7 | 8.3 |
| Gicumbi | 2,331,466,552 | 2,787,830,125 | 381,484,642 | 16.4 | 13.7 |
| Gisagara | 1,203,121,348 | 1,491,495,924 | 0 | 0 | 0 |
| Huye | 2,246,786,052 | 2,777,324,506 | 51,887,536 | 2.3 | 1.9 |
| Kamonyi | 1,194,035,339 | 1,448,697,901 | 225,184,053 | 18.9 | 15.5 |
| Karongi | 2,003,727,963 | 2,348,023,718 | 288,625,850 | 14.4 | 12.3 |
| Kayonza | 987,696,695 | 1,246,697,687 | 153,418,293 | 15.5 | 12.3 |
| Kicukiro | 1,781,720,516 | 2,829,812,304 | 73,120,651 | 4.1 | 2.6 |
| Kirehe | 582,799,634 | 784,538,297 | 159,334,645 | 27.3 | 20.3 |
| Muhanga | 1,891,332,843 | 2,247,415,792 | 270,795,249 | 14.3 | 12 |
| Musanze | 890,057,466 | 1,369,576,995 | 276,553,038 | 31.1 | 20.2 |
| Ngoma | 1,865,246,465 | 2,064,148,660 | 176,109,062 | 9.4 | 8.5 |
| Ngororero | 1,124,818,555 | 1,402,297,990 | 229,014,504 | 20.4 | 16.3 |
| Nyabihu | 992,399,791 | 1,258,319,471 | 244,880,594 | 24.7 | 19.5 |
| Nyagatare | 1,640,429,013 | 2,076,406,429 | 222,332,271 | 13.6 | 10.7 |
| Nyamagabe | 1,940,285,027 | 2,317,021,127 | 369,150,564 | 19 | 15.9 |
| Nyamasheke | 1,783,681,031 | 2,114,171,792 | 297,942,103 | 16.7 | 14.1 |
| Nyanza | 1,564,457,134 | 1,894,766,445 | 59,787,438 | 3.8 | 3.2 |
| Nyarugenge | 1,742,330,802 | 3,222,294,659 | 97,210,187 | 5.6 | 3 |
| Nyaruguru | 878,505,083 | 1,113,709,682 | 175,841,609 | 20 | 15.8 |
| Rubavu | 1,600,067,947 | 2,150,625,147 | 202,014,488 | 12.6 | 9.4 |
| Ruhango | 1,254,027,212 | 1,533,262,196 | 265,462,723 | 21.2 | 17.3 |
| Rulindo | 812,488,184 | 1,168,088,690 | 337,666,184 | 41.6 | 28.9 |
| Rusizi | 1,862,581,413 | 2,295,699,203 | 262,989,032 | 14.1 | 11.5 |
| Rutsiro | 1,270,885,031 | 1,538,546,913 | 157,557,431 | 12.4 | 10.2 |
| Rwamagana | 1,536,838,024 | 1,812,808,541 | 203,447,555 | 13.2 | 11.2 |
| Total | 43,882,156,597 | 57,027,692,096 | 6,288,536,766 | 14.3 | 11 |

APPENDIX B: Formula of grant and earmarked funds

Equation 1: Block grants transfer formula.

$$T_i = \left[\frac{POP_i}{\sum_i POP_i} * \alpha_1 * T \right] + \left[\frac{1/REVECAP_i}{\sum_i 1/REVECAP_i} * \alpha_2 * T \right] + \left[\frac{AREA_i}{\sum_i AREA_i} * \alpha_3 * T \right] + \left[\frac{REVCOL_i}{\sum_i REVCOL_i} * \alpha_4 * T \right] + \left[\frac{FINGAP_i}{\sum_i FINGAP_i} * \alpha_5 * T \right] \text{ where}$$

T_i : Total transfer to district "i"

T : Total amount of block grant

$\alpha_1 \dots \alpha_5$: Allocation weights

POP_i : Population of District "i"

$REVECAP_i$: Revenue per capita of district "i"

$AREA_i$: Area of district "i"

$REVCOL_i$: Percentage increase in revenue collection of district "i"

$FINGAP_i$: financing gap of district "i" (difference between its own revenues and its salary cost).

Equation 2: Earmarked grant transfer formula

The criteria distribute points as follows:

- Transport infrastructures (25%)
- Level of poverty (20%)
- Energy, water and telecommunication infrastructures (15%)
- Population size (10%)
- Income generating infrastructures (10%)
- Geographical configuration (10%)
- Areas (5%)
- Performance (5%) (Republic of Rwanda: CDF, 2006:10).

These criteria were not applied by CDF because the data which may serve to apply them were not available and the CDF reviewed the criteria by considering available data. The criteria are:

- Population (20%)
- Areas (10%)
- Wellbeing (40%)
- Access to water and electricity (30%).

$$\frac{20\%*(B-K)Frw*p_i}{P} + \frac{10\%*(B-K)Frw*s_i}{S} + \frac{40\%*(B-K)Frw*w_i}{W} + \frac{30\%*(B-K)Frw*e_i}{E}$$

P : Population of Rwanda

p_i : Population of the district "i"

S : Rwandan area

s_i : Area of the district

W : Sum of wellbeing index

w_i : Wellbeing index of a district

e_i : Number of households in a district with no access to drinking water and electricity

E : The sum of figures obtained

B : Annual budget allocated to CDF

K : Financial share of the district.

APPENDIX C: Correlations

| Correlations of Change in poverty level | | | |
|--|--------------------|------------------------------------|----------|
| Independent variables | Dependent variable | Change in poverty levels 2001-2006 | |
| | N | Pearson's <i>r</i> | R square |
| Voter turnout in local elections 2006 | 30 | -0.295 | 0.087 |
| Number of cooperatives | 30 | -0.469 | 0.220 |
| Percentages of orphans | 30 | -0.049 | 0.002 |
| Percentages of widows | 30 | 0.160 | 0.026 |
| Change in income per capita 2001-2006 | 30 | -0.045 | 0.002 |
| Change in expenditure per capita 2001-2006 | 30 | 0.103 | 0.011 |
| Change in access to clean water | 30 | -0.353 | 0.125 |
| Total expenditure per capita on education | 30 | 0.155 | 0.024 |
| Total expenditure per capita on health | 30 | -0.009 | 0.000 |
| Total expenditure per capita on water | 30 | -0.028 | 0.001 |
| Total expenditure per capita on roads | 30 | 0.047 | 0.002 |
| Change in percentages of district personnel with university degree 2001-2006 | 30 | 0.068 | 0.005 |
| Change in primary schools per 1000 inhabitants 2001-2006 | 30 | -0.039 | 0.001 |
| Change in secondary schools per 1000 inhabitants 2001-2006 | 30 | -0.171 | 0.029 |
| Change in health facilities per 1000 inhabitants 2001-2006 | 30 | -0.077 | 0.006 |

APPENDIX D: Correlations (Urban districts)

| Correlations (Urban districts) | | | |
|--|--------------------|------------------------------------|----------|
| | Dependent variable | Change in poverty levels 2001-2006 | |
| Independent variables | N | Pearson's <i>r</i> | R square |
| Voter turnout in local elections 2006 | 16 | -.160 | 0.026 |
| Number of cooperatives | 16 | -.116 | 0.013 |
| Percentages of orphans | 16 | -.322 | 0.104 |
| Percentages of widows | 16 | -.260 | 0.067 |
| Change in income per capita 2001-2006 | 16 | -.148 | 0.022 |
| Change in expenditure per capita 2001-2006 | 16 | .143 | 0.021 |
| Change in access to clean water | 16 | -.163 | 0.027 |
| Total expenditure per capita on education | 16 | .315 | 0.099 |
| Total expenditure per capita on health | 16 | -.072 | 0.005 |
| Total expenditure per capita on water | 16 | -.073 | 0.005 |
| Total expenditure per capita on roads | 16 | -.004 | 0.000 |
| Change in percentages of district personnel with university degree 2001-2006 | 16 | -.053 | 0.003 |
| Change in primary schools per 1000 inhabitants 2001-2006 | 16 | .408 | 0.167 |
| Change in secondary schools per 1000 inhabitants 2001-2006 | 16 | -.001 | 0.000 |
| Change in health facilities per 1000 inhabitants 2001-2006 | 16 | -.072 | 0.005 |

APPENDIX E: Correlations (Rural districts)

| Correlations (Rural districts) | | | |
|--|---------------------------|---|-----------------|
| | Dependent variable | Change in poverty levels 2001-2006 | |
| Independent variables | N | Pearson's <i>r</i> | R square |
| Voter turnout in local elections 2006 | 14 | -.426 | 0.182 |
| Number of cooperatives | 14 | -0.650 | 0.423 |
| Percentages of orphans | 14 | .196 | 0.038 |
| Percentages of widows | 14 | .410 | 0.168 |
| Change in income per capita 2001-2006 | 14 | .032 | 0.001 |
| Change in expenditure per capita 2001-2006 | 14 | .036 | 0.001 |
| Change in access to clean water | 14 | -.481 | 0.232 |
| Total expenditure per capita on education | 14 | .017 | 0.000 |
| Total expenditure per capita on health | 14 | .012 | 0.000 |
| Total expenditure per capita on water | 14 | -.006 | 0.000 |
| Total expenditure per capita on roads | 14 | .088 | 0.008 |
| Change in percentages of district personnel with university degree 2001-2006 | 14 | .218 | 0.048 |
| Change in primary schools per 1000 inhabitants 2001-2006 | 14 | -.264 | 0.070 |
| Change in secondary schools per 1000 inhabitants 2001-2006 | 14 | -.314 | 0.098 |
| Change in health facilities per 1000 inhabitants 2001-2006 | 14 | -.076 | 0.006 |

APPENDIX F: Multiple regression results

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .709 ^a | .502 | -.031 | 9.025 |

a. Predictors: (Constant), Change in health facilities per 1000 inhabitants 2001-2006, Total expenditure per capita on education, Total expenditure per capita on roads, Change in primary schools per 1000 inhabitants 2001-2006, Change in percentages of district personnel with university degree 2001-2006, Change in access to clean water, Percentages of orphans, Total expenditure per capita on water, Number of cooperatives, Change in secondary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on health, Voter turnout in local elections 2006, Change in expenditure per capita 2001-2006, Percentages of widows, Change in income per capita 2001-2006

ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|------|-------------------|
| 1 | Regression | 1150.113 | 15 | 76.674 | .941 | .547 ^a |
| | Residual | 1140.355 | 14 | 81.454 | | |
| | Total | 2290.468 | 29 | | | |

a. Predictors: (Constant), Change in health facilities per 1000 inhabitants 2001-2006, Total expenditure per capita on education, Total expenditure per capita on roads, Change in primary schools per 1000 inhabitants 2001-2006, Change in percentages of district personnel with university degree 2001-2006, Change in access to clean water, Percentages of orphans, Total expenditure per capita on water, Number of cooperatives, Change in secondary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on health, Voter turnout in local elections 2006, Change in expenditure per capita 2001-2006, Percentages of widows, Change in income per capita 2001-2006

b. Dependent Variable: Change in poverty levels 2001-2006

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--|-----------------------------|------------|---------------------------|--------|-------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 92.503 | 52.066 | | 1.777 | 0.097 |
| Voter turnout in local elections 2006 | -0.734 | 0.601 | -0.480 | -1.221 | 0.242 |
| Number of cooperatives | -0.07 | 0.059 | -0.363 | -1.185 | 0.256 |
| Percentages of orphans | -0.462 | 0.353 | -0.454 | -1.309 | 0.211 |
| Percentages of widows | 0.467 | 0.814 | 0.234 | 0.574 | 0.575 |
| Change in income per capita 2001-2006 | -0.003 | 0.005 | -0.222 | -0.49 | 0.632 |
| Change in expenditure per capita 2001-2006 | 0 | 0.002 | 0.028 | 0.069 | 0.946 |
| Change in access to clean water | -0.263 | 0.388 | -0.222 | -0.678 | 0.509 |
| Total expenditure per capita on education | 0 | 0.002 | 0.042 | 0.121 | 0.906 |
| Total expenditure per capita on health | 0.001 | 0.007 | 0.027 | 0.081 | 0.936 |
| Total expenditure per capita on water | -0.002 | 0.007 | -0.108 | -0.312 | 0.759 |
| Total expenditure per capita on roads | 0.001 | 0.004 | 0.069 | 0.188 | 0.853 |
| Change in percentages of district personnel with university degree 2001-2006 | 0.004 | 0.399 | 0.004 | 0.011 | 0.991 |
| Change in primary schools per 1000 inhabitants 2001-2006 | 1.515 | 41.405 | 0.011 | 0.037 | 0.971 |
| Change in secondary schools per 1000 inhabitants 2001-2006 | -27.127 | 117.292 | -0.069 | -0.231 | 0.82 |
| Change in health facilities per 1000 inhabitants 2001-2006 | -46.066 | 115.384 | -0.194 | -0.399 | 0.696 |

a. Dependent Variable: Change in poverty levels 2001-2006

Urban

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | 1.000 ^a | 1.000 | . | . |

a. Predictors: (Constant), Change in health facilities per 1000 inhabitants 2001-2006, Total expenditure per capita on roads, Change in access to clean water, Change in expenditure per capita 2001-2006, Percentages of orphans, Change in secondary schools per 1000 inhabitants 2001-2006, Change in percentages of district personnel with university degree 2001-2006, Number of cooperatives, Total expenditure per capita on health, Change in primary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on education, Voter turnout in local elections 2006, Change in income per capita 2001-2006 , Percentages of widows, Total expenditure per capita on water

ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|---|----------------|
| 1 | Regression | 628.109 | 15 | 41.874 | . | . ^a |
| | Residual | .000 | 0 | . | . | . |
| | Total | 628.109 | 15 | . | . | . |

a. Predictors: (Constant), Change in health facilities per 1000 inhabitants 2001-2006, Total expenditure per capita on roads, Change in access to clean water, Change in expenditure per capita 2001-2006, Percentages of orphans, Change in secondary schools per 1000 inhabitants 2001-2006, Change in percentages of district personnel with university degree 2001-2006, Number of cooperatives, Total expenditure per capita on health, Change in primary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on education, Voter turnout in local elections 2006, Change in income per capita 2001-2006 , Percentages of widows, Total expenditure per capita on water

b. Dependent Variable: Change in poverty levels 2001-2006

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--|-----------------------------|------------|---------------------------|---|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | -226.464 | 0.000 | | . | . |
| Voter turnout in local elections 2006 | -0.683 | 0.000 | -0.641 | . | . |
| Number of cooperatives | -0.205 | 0.000 | -1.215 | . | . |
| Percentages of orphans | 2.769 | 0.000 | 4.337 | . | . |
| Percentages of widows | -6.037 | 0.000 | -3.786 | . | . |
| Change in income per capita 2001-2006 | -0.004 | 0.000 | -0.557 | . | . |
| Change in expenditure per capita 2001-2006 | -0.001 | 0.000 | -0.323 | . | . |
| Change in access to clean water | -3.414 | 0.000 | -3.873 | . | . |
| Total expenditure per capita on education | -0.006 | 0.000 | -1.182 | . | . |
| Total expenditure per capita on health | -0.014 | 0.000 | -0.717 | . | . |
| Total expenditure per capita on water | 0.067 | 0.000 | 3.858 | . | . |
| Total expenditure per capita on roads | 0.014 | 0.000 | 1.376 | . | . |
| Change in percentages of district personnel with university degree 2001-2006 | 2.684 | 0.000 | 3.192 | . | . |
| Change in primary schools per 1000 inhabitants 2001-2006 | 366.743 | 0.000 | 3.18 | . | . |
| Change in secondary schools per 1000 inhabitants 2001-2006 | -481.168 | 0.000 | -1.825 | . | . |
| Change in health facilities per 1000 inhabitants 2001-2006 | 47.055 | 0.000 | 0.331 | . | . |

a. Dependent Variable: Change in poverty levels 2001-2006

RURAL

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | 1.000 ^a | 1.000 | . | . |

a. Predictors: (Constant), Change in health facilities per 1000 inhabitants 2001-2006, Number of cooperatives, Change in income per capita 2001-2006 , Percentages of widows, Change in percentages of district personnel with university degree 2001-2006, Voter turnout in local elections 2006, Change in secondary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on education, Total expenditure per capita on roads, Total

expenditure per capita on health, Percentages of orphans, Change in primary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on water

ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|---|------|
| 1 | Regression | 1652.864 | 13 | 127.143 | | .a |
| | Residual | .000 | 0 | | | |
| | Total | 1652.864 | 13 | | | |

a. Predictors: (Constant), Change in health facilities per 1000 inhabitants 2001-2006, Number of cooperatives, Change in income per capita 2001-2006, Percentages of widows, Change in percentages of district personnel with university degree 2001-2006, Voter turnout in local elections 2006, Change in secondary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on education, Total expenditure per capita on roads, Total expenditure per capita on health, Percentages of orphans, Change in primary schools per 1000 inhabitants 2001-2006, Total expenditure per capita on water

b. Dependent Variable: Change in poverty levels 2001-2006

University of Cape Town

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--|-----------------------------|------------|---------------------------|---|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 494.087 | 0.000 | | . | . |
| Voter turnout in local elections 2006 | 0.123 | 0.000 | 0.056 | . | . |
| Number of cooperatives | -0.408 | 0.000 | -1.968 | . | . |
| Percentages of orphans | 0.095 | 0.000 | 0.061 | . | . |
| Percentages of widows | 0.038 | 0.000 | 0.016 | . | . |
| Change in income per capita 2001-2006 | 0.206 | 0.000 | 2.66 | . | . |
| Total expenditure per capita on education | -0.015 | 0.000 | -1.459 | . | . |
| Total expenditure per capita on health | -0.006 | 0.000 | -0.26 | . | . |
| Total expenditure per capita on water | 0.115 | 0.000 | 4.818 | . | . |
| Total expenditure per capita on roads | -0.052 | 0.000 | -4.811 | . | . |
| Change in percentages of district personnel with university degree 2001-2006 | -4.936 | 0.000 | -2.889 | . | . |
| Change in primary schools per 1000 inhabitants 2001-2006 | 256.761 | 0.000 | 1.599 | . | . |
| Change in secondary schools per 1000 inhabitants 2001-2006 | -1644.79 | 0.000 | -2.901 | . | . |
| Change in health facilities per 1000 inhabitants 2001-2006 | -2057.71 | 0.000 | -3.496 | . | . |

a. Dependent Variable: Change in poverty levels 2001-2006

Unive