



**The Contribution of Imihigo on Socio-Economic Development (2013- 2018):
A Case of Gakenke District**

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DECLARATION

I declare that this Dissertation entitled “**The Contribution of Imihigo on Socio-Economic Development (2013- 2018): A Case of Gakenke District**” contains my own work except where specifically acknowledged.

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APPROVAL

This work was done under my close supervision at University of Rwanda. I therefore acknowledge its authenticity and approve it as worth for the award of the Master's Degree of Local Governance Studies.

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ABSTRACT

The present research was about analysis of the contribution of Imihigo on the socio-economic development in Rwanda (2013- 2018) using a case of Gakenke District.

The research used a mix of quantitative and qualitative approaches where numerical data were collected through questionnaire and non- numerical data were collected using interview, focus group discussions, telephone calls and personnel observations. Secondary data were collected using archival review techniques. The research used a sample of 86 respondents from a population of 617 village leaders in Gakenke District. The sampling technique used was Slovin's formula. The variables used by the research are: Agriculture, infrastructure, environment protection, entrepreneurship, social protection, education, health and gender.

In economic development cluster, the research found that 100% of respondents affirmed that Imihigo improved agricultural techniques (land consolidation, crop intensification program, use of fertilizers, radical terracing) that increased the production which in turn improved the lives of the citizens. Hunger and malnutrition were reduced. 100% of respondents affirmed that new forest and trees were planted under Imihigo system and served to protect soil against erosion and thus contributed to agricultural productivity. Infrastructure was also developed: 97% affirmed that improved roads through Imihigo have improved commercial activities; above 70% of respondents affirmed that Imihigo improved access to electricity and improved the lives by the creation of new businesses and expanding existing ones. 72% affirmed that Imihigo system has entrepreneurship by the creation of new jobs and 69% added the promotion of cooperatives.

In social development, the research found also positive results. 100% of respondents affirmed that Imihigo system improved lives of poorest households through social protection programs namely VUP and Girinka; education sector was improved by new classrooms constructed (100%) and mechanisms reducing dropouts together with school feeding (86%); 90% affirmed that Imihigo system improved health care services.

Despite positive results of Imihigo system, the research found a number of challenges mainly dominated by limited budget allocated to infrastructure, fertilizers, BDF, VUP and Girinka.

Key Words: Development, Imihigo, Socio-economic.

LIST OF ABBREVIATIONS

AFDB	African Development Bank
BDF	Business Development Funds
BRD	Development Bank of Rwanda
CDC	Community Development Committee
CIP	Crop Intensification Program
DDPs	District Development Plans
EDPRS	Economic Development and Poverty Reduction Strategy
GoR	Government of Rwanda
HGSs	Home Grown Solutions
IPAR	Institute of Policy Analysis and Research
JADF	Joint Action Development Forum
LODA	Local Entities Administrative Development Agency
MINAGRI	Ministry for Agriculture and Animal Resources
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance and Economic Planning
MINIJUST	Ministry of Justice
MININFRA	Ministry of Infrastructure
MT/Ha	Metric Tons per Hectare
MVT	Massive vocational trainings
NAEB	National Agricultural Export Development Board
NEPAD	New Partnership for Africa's Development
NISR	National Institute of Statistics of Rwanda
OECD	Organization for Economic Cooperation and Development
PRIMATURE	Office of the Prime Minister
RAB	Rwanda Agriculture Board
RGB	Rwanda Governance Board
RISA	Rwanda Information Society Authority
SACCO	Savings and Credit Cooperatives
SDGs	Sector Development Plans
SDPs	Sector Development Plans
SEDOs	Social and Economic Development Officers
TVET	Technical and Vocational Education and Training
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
UN	United Nations
VUP	Vision Umurenge Program
Freq.	Frequency
%	Percentage

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CHAPTER 1: GENERAL INTRODUCTION

1.0.Overview

This first chapter presents respectively the background to the study, the statement of the problem, the research objectives, research questions, research hypotheses, significance of the study, the scope of the study, the limitation of the study, research methodology, dissemination of findings, and it will end by presenting the structure of the thesis.

1.1.Background of the study

Behera (2016) defines socio-economic development as a process of social and economic development in any society aiming at improving the well-being towards the fulfillment of own full potential. The success of any society is linked to the well-being of each and every citizen. The principle of social development consists of investing in people where every citizen has the opportunity to grow, to develop own skills, and to contribute to own families and communities. If people are healthy, well- educated and trained to enter the workforce and are able create decent wage by their own, now they are well equipped to meet their basic needs and being successful. The research lists the following needs for a society to grow namely: affordable high quality child care system, a safe affordable place to live, and other investments in people that contribute to the economic prosperity such as youth programs and services, post-secondary education, job creation, promotion of healthy, active living and safe and secure communities.

This research reiterates the declaration of New Partnership for Africa's Development (NEPAD) identifying the eradication of poverty and fostering of socio- economic development as the over- arching twin of its objectives. NEPAD affirms that in order to reduce poverty, there is a need to take a social development approach and invest in citizens (NEPAD, 2003).

The NEPAD declaration outlines its six key social economic development objectives namely: (1) promoting self- reliance in development and build capacity for self- sustaining development; (2) accelerating socio- economic development to achieve sustainable development and poverty eradication; (3) strengthening policies, delivery mechanisms and outputs in key social development areas including education, combating of HIV/ AIDS and other diseases; (4) ensuring affordable access to water, energy, finance, markets and ICT to all citizens, especially the rural poor; (5) progress towards gender equality, especially equal access to education for girls at all levels; and (6) encourage broad based participation in development by all stakeholders at all levels (Idem).

The World Economic Forum (2018) recall that Government has the responsibilities of addressing the changing needs of citizens over their entire lifetimes, providing platforms to help them get the resources and make the connections they need, and seeing a whole set of public goods created by the sum of their deliberately many parts.

The Government of Rwanda is convinced that the need to accelerate socio-economic development is vital, in order to address poverty. In the aftermath of 1994 genocide against the Tutsi, the Government of Rwanda has often opted to use approaches embedded in cultural values and historical heritage of Rwanda to find solutions to current societal problem. Such cultural values are known as Home Grown Solutions (HGSs) (Versailles, 2012). Imihigo is one among main Rwanda's Home Grown Solutions (HGSs) adopted by the Government of Rwanda in 2006 as governance innovations that provide unconventional response to the modern development challenges, which are unlikely to be addressed through conventional means. In the aftermath of 1994 genocide against the Tutsi, the Government of Rwanda has often opted to use approaches embedded in cultural values and historical heritage of Rwanda to find solutions to current societal problems (MINALOC, 2012).

According to Versailles (2012), Imihigo program (Performance contracts) are contracts between the President of the Republic of Rwanda and government agencies detailing what the respective institution sets itself as targets on a number of governance, justice, economic and social indicators. The stated objective of Imihigo is to improve the speed and quality of execution of government programmes, thus making public agencies more effective. It is a means of planning to accelerate the progress towards economic development and poverty reduction. Imihigo has a strong focus on results which makes it an invaluable tool in the planning, accountability and monitoring and evaluation processes.

Different researchers outlined the contribution of Imihigo in improving the socio economic development of the population:

Bisaga (2017) analyzed the success of Imihigo in increasing access to energy in Rwanda. The research found that 93% of participants affirmed that energy imihigo were common in their villages. Together with Grimm et al., 2016, the research found that that due to imihigo, off-grid solar is increasing.

By Imihigo, the population increases access to solar electricity which is cost effective and affordable for them than grid-based electrification expensive to install in rural locations.

The research analyzed the energy access in general and it does not outline the situation per District especially Districts in rural areas where infrastructure continues to be challenging. Another weakness of the research is that it considers the answers from respondents and affirms that Imihigo increase access to energy. The research does not provide evidences in terms of households with access to energy.

Makuza (2012) analyzed the contribution of Imihigo in improving the social economic development in ten Districts namely Gicumbi, Musanze, Gisagara, Ruhango , Nyamasheke, Karongi, Kicukiro, Gasabo, Bugesera, Kirehe. The research found the following results in terms of percentages: improved health (mutual health insurance) 42%, improved education (9YBE) 20.5%, eradicated grass thatched houses 11.2%, improved hygiene and sanitation 8.7%, Girinka programme 6.8%, alleviated diseases 5.7% and job creation 1.8%, infrastructure developed as a major achievement is 24.8%, land consolidated 21.7%, Umurenge SACCO 20.3%, strengthened cooperatives 18.3% and provision of land titles 5.3%.

This research outlines very low achievements and it creates needs to know the current situation of the contribution of Imihigo to socioeconomic development especially for a District like Gakenke which has shown impressive achievements in Imihigo performance ranking since 2012. The District has occupied respectively the following ranks: 30th over 30 Districts in 2012-2013; 15th in 2013- 2014; 24th in 2014- 2015; 27th in 2015- 2016; and 4th in 2016- 2017 (GoR, 2013; IPAR- Rwanda, 2014; 2015; 2016; 2017). Such achievements of reaching the 4th rank in 2017 from 30th over 30 Districts in 2012 attracted the present research to analyze the relationship between the rank occupied and the level of improvement of socio economic development in the District.

1.2. Research problem

The government of Rwanda has adopted Imihigo as a tool to accelerate the socio- economic development of the population. Every year, all Districts are evaluated and ranked based on the level of performance in achieving planned activities in line with improving the socio- economic development of the population.

Gakenke District has shown impressive achievements, during only past six years whereby the District jumped from 30th rank in 2012- 2013 to 4th in 2016- 2017 and remains 4th in 2017- 2018. During 2006- 2009 periods, some researchers outlined negative conception of Imihigo in relation to socio- economic development of the citizens:

Huggins (2006) analyzed the role of Imihigo in agriculture. The research found that at the beginning Imihigo system was negatively criticized by the local population. The conception at that time was that the local authorities use measures such as fines and destruction of property to ensure targets are met. Respondents confirmed some form of compulsion had been used to achieve the imihigo targets. The important point, as far as the farmers are concerned, is that when the choice of crop, types of seed, amount of fertilizer, time of planting, harvest, and sale are all controlled by the local authorities, they have effectively lost control over how they use their land. This goes in parallel with obligation to farmers joining “cooperatives” through which decisions are made regarding all aspects of farming.

Ansoms (2009) found negative impact of Imihigo on socio-economic development. According to the research, the District mayors sign a performance contract (imihigo) with President of the Republic, specifying the key targets that individual Districts are to attain within one year, in line with the government’s national priorities. This contract increases the risk of a stampede to meet targets whereby some of them are extremely ambitious. The research illustrates this position by the example of crop planning, the blind belief in technical solutions, and the degree of force used during the implementation used in agriculture sector. Other examples are some District development plans, where are found extremely detailed references to crop production targets, to the percentage of soil that should be terraced, to the percentage of households that should be living in imidugudu. The danger is that pre-defined rigid targets are allowed to override numerous concerns, to the detriment of small-scale farmers.

Other researchers found negative impact of Imihigo namely: Holvoet and Rombouts 2008 affirming that performance targets may be unrealistic; Ansoms 2009 affirming that policies may be enforced without giving consideration to local needs; and Ingelaere 2010 affirming that the chain of accountability goes upwards towards higher authorities and not downwards towards the population; and Ansoms and Murison 2012 affirming that Imihigo may be totally unsuitable within a particular local context.

The previous texts justify that Imihigo system was not well understood at the beginning. This is understandable because changing the mindset take time and efforts. As the time passed and trainings conducted, the citizens and researchers started finding positive results of Imihigo system. The following texts demonstrate the mindset change vis- a vis Imihigo and its integration as a tool accelerating the development:

Stern and Straus (2011) analyzed the improvement of the standards of health and hygiene in rural areas through Imihigo. The research found that Imihigo approach remunerates staff partly on the services they deliver and empowers them to search for creative solutions to improve service provision. Survey results show that almost 60 percent of respondents indicate that activities linked to imihigo involve more efforts of local officials fear that they will negatively affected and so they work hard to achieve the performance targets.

Tumwebaze (2012) found positive impact of Imihigo on the socio- economic development. The researcher cite the following benefits: (i) the benefits accrued from simple household-led initiatives such as nutritional garden (akarima k'igikoni) to huge-impact projects such as the construction of schools nationwide to provide free and steadfast education to the future leaders of Rwanda; (ii) According to EICV3 more than one million Rwandans broke poverty. The survey results indicate that poverty levels dropped to 44.9% in 2010/11 from 56.7% in 2005/6. Over 45.2 % (over 4 million) of the Rwandan population has a mobile phone while over 215,000 households have access to electricity; (iii) Imihigo increased the number of pupils going to school at the right age; (iv) Through Imihigo, the country has significantly reduced the number of pregnant women that die to 487/100,000 in 2010 from 750 women in 2005 and 1071 in 2000. Significant improvement was noticed in antenatal care, delivery assisted by skilled provider and delivery in a health facility.

Verpoorten (2014) found that increased upward accountability from the local to the central government level through Imihigo have played a role in triggering economic growth and improvements in health and education.

UNDP (2015) found that Imihigo practice was adapted as a means of planning to accelerate progress towards economic development and poverty reduction. Imihigo has a strong focus on results, which makes it an invaluable tool in the planning, accountability and monitoring.

The research list the following achievements in socio- economic development through Imihigo such as infrastructure (mostly roads, electricity), agricultural production, tourism promotion, and more recently, mining. Imihigo has improved: i) food security, ii) nutrition, iii) household incomes (farmers) and employment (farm and non-farm agricultural labour), and iv) revenue generation for local governments.

From previous researches it is found that Imihigo constitute effective tool for socio- economic development. However, Imihigo can also have negative impact by being seen as imposed mechanisms to meet targets whereby some of them are extremely ambitious. This goes with false data for gaining good rank as affirmed by researchers above together with Scher (2010), Chemouni (2014) and IPAR (2015) found that the pressure exerted by the Imihigo led to falsification of data for occupying the good rank without any link to improved socioeconomic development of the population. In this sense, the socio- economic development cannot be effectively achieved.

In order to assess the contribution of Imihigo on the socio- economic development of the citizens, the research took Gakenke as a case study. In fact, Gakenke is a rural District that occupied impressive good rank since 2012 from 30th rank in 2012/2013 to 4th rank in 2017/2018 and kept the same rank in 2017/2018. The problem of the research was to assess whether such achievements in ranking goes with improved socio- economic development of the population.

1.3. Research objectives

The present research has general objectives and specific objectives.

1.3.1. General objective

The general objective of this study is to assess the contribution of Imihigo on the socio economic development in Rwanda using a case study of Gakenke District.

1.3.2. Specific objectives

Specifically, the present research has the following objectives:

- 1) To assess the achievements in socioeconomic development in Gakenke District through Imihigo system.
- 2) To assess the changes brought in socioeconomic development by Imihigo system.

- 3) To assess the challenges of Imihigo system in improving the socioeconomic development in Gakenke District.

1.4. Research questions

The research as general research question and specific research questions.

1.4.1. General research question

In general, the research aims at answering the question: What is the contribution of Imihigo on socioeconomic development in Gakenke District?

1.4.2. Specific research questions

The present research will answer the following three key questions:

- 1) What are the achievements in socioeconomic development in Gakenke District through Imihigo system?
- 2) What are the changes brought in socioeconomic development by Imihigo system?
- 3) What are the challenges of Imihigo system in improving the socioeconomic development in Gakenke District?

1.5. Significance of the study

The Government of Rwanda has opted for Imihigo Program as an effective tool for poverty alleviation and improving socio economic development. This research presents interest at personnel level, Gakenke community level, University level, local researcher level, Government level and at global scientific level.

Personal level

The researcher gained practical techniques of doing a research by implementing theories acquired at university. The researcher also understood well how effective government's programs led to effective development of the population. The present research also allows the student the award of a Masters' Degree.

Community level

Achievements of Imihigo require conjugated efforts between the population and the leaders including everyone's commitment working towards the vision set. The findings from this research describe the achievements got during past 5 years, but also some challenges encountered. The Community of Gakenke District, as primordial actors, will be aware of the achievements of their efforts and they will be motivated to increase their level of commitment to face challenges.

University level

University of Rwanda will benefit twice from this research: Firstly, this research demonstrates the quality of education provided by University of Rwanda, because the success of the research implied the quality of the training of the University. Secondary, the University of Rwanda, as an academic institution, it has the mission of contributing to the development of the Country through providing to policy makers real findings from analysis of problems of the society. In this line, this research is a contribution of the University of Rwanda to the development of the Country.

Government level

The Government of Rwanda has adopted home grown solutions such as Imihigo to find solutions to modern challenges to the socio economic development of the population. This research is interesting for the Government of Rwanda because it is a scientific tool outlining the achievements of Imihigo program and also the challenges. By providing mechanisms to face the challenges, the research will provide policy makers with the bases from which to build the future.

Local and global scientific level

The findings from this research will be saved in Library of the University of Rwanda for local access; but also they will be published in international journal for easy access for all researchers over the world. Thus the experience of Rwanda will serve other countries, especially developing countries.

1.6.The scope of the study

This research is limited in area, in time and in its content.

1.6.1. Geographical scope

This research was conducted in Gakenke District, one of the five Districts of the Northern Province. Gakenke District borders with Rulindo District at East; Burera and Musanze Districts at North; Nyabihu District at West; and Kamonyi and Muhanga Districts at South. It is subdivided into 19 sectors namely Busengo, Coko, Cyabingo, Gakenke, Gashenyi, Mugunga, Janja, Kamubuga, Karambo, Kivuruga, Mataba, Minazi, Muhondo, Muyongwe, Muzo, Nemba, Ruli, Rusasa and Rushashi. In order to manage the time limits and financial constraints, the research focused on two sectors namely Gakenke, Nemba.

1.6.2. Time scope

The research considered the period of 5 years between 2013- 2018. Gakenke has shown impressive ranking achievement among other Districts from the 30th rank to 4th rank between 2013- 2018; and this period allowed the researcher to collect enough data and to measure the real improvements in social economic development of the population in Gakenke District.

1.6.3. Content Scope

The research content is about the socio- economic development. In fact, Imihigo target to improve the lives of the population and alleviating poverty.

1.7.Limitations of the study

The research faced some challenges such as:

Financial limitations

Field research requires enough financial resources and Gakenke District is covered by hills and there are not enough roads facilitating transport. To face this challenge, the researcher used motorcycle and developed good communication with local administrative leaders to facilitate the on- field data collection.

1.8. Dissemination of findings

The researcher will give a copy of the report to the administrative staff of Gakenke District for facilitating their implementation. Another copy will be deposited in the Library of the National University of Rwanda. The researcher will also publish the findings in international journal of research for easy access for all.

1.9. Organization of the study

This research comprises six chapters: introductory chapter giving the background, the statement of the problem, the objectives of the study, the research questions, significance of the study, the scope of the research, methodology used, limitations of the study, and dissemination of findings. The second chapter gives the literature review summarizing theories developed around the topic and giving the summary of findings from previous researches conducted on the topic in different geographical areas. The third chapter describes the methods and techniques used to collect, analyze and interpret the data. The fourth chapter is about data analysis and interpretation. The fifth chapter discussed the findings, conclusion and recommendations without forgetting suggestions for further studies.

CHAPTER 2: ORIGIN AND DEVELOPMENT OF IMIHIGO SYSTEM

2.0.Overview

Imihigo is a term used properly for Rwanda but it has its similarities in other countries and societies where it is known as “Performance Contracts”. The core concept of Imihigo (performance contracts) consists of that they constitute a freely negotiated performance agreement between the government- which acts as the owner of the government agency, and the agency. It specifies the intentions, obligations and responsibilities of the parties (Peterson, 2005).

A research conducted by Masengesho Kamuzinzi in 2016 found that Imihigo is hybrid concept combining traditional and modern aspects. By traditional aspect, Imihigo is a cultural practice in Rwandan traditional whereby an individual set himself/herself targets known as Imihigo to be achieved within a specific period of time. Traditionally, Imihigo was motivated by intrinsic stance involving personal commitment and inventiveness. This allowed working with determination, being motivated to achieve the determined vision while facing challenges. The modern aspects of Imihigo outlined by the research views Imihigo as a means of planning, directing, monitoring all activities aimed at accelerating the progress towards socioeconomic development and poverty reduction. In modern, Imihigo is motivated by extrinsic posture based on accountability and effectiveness of individuals, groups, or institution as a whole. As such, Imihigo has a strong focus on results which turn it to be a tool for monitoring and evaluation (Masengesho Kamuzinzi, 2016).

2.1.Conception of Imihigo (Performance Contracts) by different authors

England (2000) defines performance contract and clearly show its mission of addressing economic, social or other tasks that an agency has to discharge for economic performance or for other desired results. It organizes and defines tasks so that management can perform them systematically, purposefully, and with reasonable probability of accomplishment. It also assists in developing points of view, concepts and approaches for determining what should be done and how to go about it. Performance contracts comprise determination of mutually agreed performance targets and review and evaluation of periodic and terminal performance.

Jody et al (2004) states that performance contracts are contracts that define expectations of the concerned parties. They define the work to be done, the results to be attained, the attributes (skills, knowledge and expertise) and the competencies that are required to achieve defined results. Parties also identify measures used to monitor, review and assess the performance.

This definition of Jody does not mention the role of government in planning and in evaluating performance contracts. The following World Bank's definition fills this gap.

According to the World Bank (1995) performance contract is as a written or negotiated agreement between government or its representative agency and the management of public enterprises and other autonomous units directly delivering services to public, or between government and private managers of state assets, where in quantifiable targets are explicitly specified for a given period and performance is measured against targets at the end of the period.

On cited previous definitions of performance contracts, Schiavo-Campo and Sundaram (2001) add a new notion of transparency. According to the authors, transparent governance is an important element in performance contracts as it is a means that the citizens know what the public administration is doing, how it is doing it, and why it is doing it, including its planning for the future.

2.2. Historical overview of performance contracts

According to Mbuthia et al. (2012) and the Organization for Economic Cooperation and Development (OECD), Performance Contract System originated in France in the late 1960s, and was developed with great deal of elaboration in Pakistan and Korea and later in India. The system was adopted in developing countries in Africa, such as Nigeria, Kenya, Benin, Burundi, Cameroon, Cape Verde, Congo Cote D'ivoire, Gabon, the Gambia, Ghana, Guinea, Madagascar, Mali, Mauritania, Niger, Togo, Tunisia, Rwanda, Kenya and Zaire. In Latin America, the scheme has been used in Brazil, Bolivia, Chile, Columbia, Mexico and Venezuela. Others include Malaysia, Bangladesh, China, India, Korea, Pakistan and Sri Lanka, United Kingdom, USA, Canada, Denmark and Finland among others (OECD, 1997).

2.3.Imihigo in Rwanda

Imihigo system in Rwanda traditional had an individual character whereby one person did “Umuhigo” (individual and voluntary contract); the system evolved in new Imihigo system institutionalized in 2006. The following text gives details.

2.3.1. Historical overview

According to RGB (2016) Imihigo is the plural Kinyarwanda word of Umuhigo, which means to vow to deliver. Imihigo also includes the concept of Guhiganwa, which means to compete among one another. Imihigo consists of the pre-colonial cultural practice used in Rwanda where an individual sets targets or goals to be achieved within a specific period of time. In order to achieve such umuhigo, the person must complete these objectives by following guiding principles and be determined to overcome any possible challenges that arise. In the old Rwandan cultural practice also, two parties publicly could commit themselves to the achievement of a particularly demanding task (Guhiga). Failing to meet these commitments (umuhigo) usually led to dishonor, not only to the participating individuals but to the community as a whole. Those who achieved their pledges became role models in the community, and their exploits were echoed in history.

In modern period, as part of efforts to reconstruct Rwanda and nurture a shared national identity, the Government of Rwanda drew on aspects of Rwandan culture and traditional practices to enrich and adapt its development programs to the country’s needs and context.

In this line, the Government of Rwanda developed a set of Home Grown Solutions - culturally owned practices translated into sustainable development programs. One of these Home Grown Solutions is Imihigo.

Since 2000 with the Vision 2020, a shift in the responsibilities of all levels of government as a result of a decentralisation program required a new approach to monitoring and evaluation. Local levels of government were now responsible for implementing development programs which meant that the central government and people of Rwanda needed a way to ensure accountability. Imihigo was introduced to address this need in 2006.

Imihigo is a home-made approach that entails the signing of performance contracts between the President of Rwanda, Government Ministries and Districts Mayors. The contract details what each respective institutions targets to achieve in a period of one year, within the pillars of governance, economic, social sectors of economy. Imihigo further demonstrate a high-level demand for the use of data to improve development process. The stated objective of Imihigo is to improve the speed and quality of government programmes execution, thus making public agencies more effective. It is a means of accelerating progress towards economic development and poverty reduction (MINALOC, 2012).

Since its introduction, Imihigo has been credited with improving accountability and quickening the citizen centered development activities and programs. The practice of Imihigo has now been extended to ministries, embassies and public service staff (Versailles, 2012; MINALOC, 2012).

2.3.2. Objectives of Imihigo

MINALOC (2012) list the following objectives of Imihigo setting such as: to Speed up implementation of local and national development agenda; to ensure stakeholder ownership of the development agenda; to promote accountability and transparency; to promote result oriented performance; to instill innovation and encourage competitiveness; to engage stakeholders (citizens, civil society, donors, private sector, etc) in policy formulation and evaluation; to promote zeal and determination to achieve set goals; and to instill the culture of regular performance evaluation. The Paper gives also three main principles of Imihigo setting namely: Voluntary, ambitious, and excellence. By “voluntary”, Imihigo is a choice and not imposed despite national guidance is necessary to ensure that the national priorities are matching with local ones; by ambitious, the actor of Imihigo promises/vows to achieve only what he/ she does not already have; by excellence, Imihigo is about outstanding performance, something worth of praise.

2.3.3. The preparation and adoption of Imihigo

According to IPAR (2014) the Imihigo preparation process comprises the following stages: identification of national priorities by the Central Government; communication of national priorities to Local Government; identification of local priorities; and adoption and approval of these.

When identifying national priorities, national and international planning tools are taken into account including Sustainable Development Goals (SDGs) and Vision 2020 and EDPRS2. Therefore, ministries set their own indicators against national priorities to be implemented at local levels after reviewing available budgets against planned actions.

According to MINALOC(2013) when elaborating its imihigo- performance contracts-, each local government administrative unit determines its own objectives (with measurable indicators) taking into account national priorities as highlighted in the International and National strategic documents such as the Sustainable Development Goals (SDGs), Vision 2020, EDPRS II, District Development Plans (DDPs) and Sector Development Plans (SDPs). The Imihigo, at both planning and reporting phases, are presented to the public for purposes of accountability and transparency. The Mayors and Province Governors also sign the imihigo or performance contracts with H.E the President of the Republic of Rwanda committing them to achieving the set objectives.

2.3.3.1. Main actors of Imihigo planning

Imihigo new system involves all levels of the society from individual to the District levels. The main actors of Imihigo planning are summarized in the following table 1.

Table 1: Actors of Imihigo Planning

Level	Who prepares	Who adopts
Individual	Individual	Individual/Head of the household
Family	Family	Head of the household
Village	Village Executive Committee	Cell Executive Secretary
Cell	Cell Executive Secretary	Cell Council and Sector Executive Secretary
Sector	Community Development Committee (CDC) and Sector Executive Secretary agreed with the Sector Joint Action Development Forum (JADF)	Sector Council and District Executive Committee
District	Community Development Committee (CDC), District Joint Action Development Forum (JADF) and District	District Council and Governor of Province or Mayor of KC

Source: Author's computation of data provided by RGB (n.d).

The table above shows that Imihigo start from the individuals who set individual targets during a period of one year; and evaluate the success at the end. Households set own Imihigo for the socioeconomic development of the members. Households' Imihigo are synthesized into Village Imihigo and they are transferred to Cell level. The Cell synthesizes Imihigo from all Villages and elaborates own Imihigo. At sector level the principle is the same as for Cell level. The District at their levels defines Imihigo by synthesizing Imihigo from Sectors. Imihigo are adopted by respective authorities from individual to District levels.

2.3.3.2. Main steps in Imihigo preparation process

IPAR (2015) outlined the following 5 main steps during the process of the preparation of Imihigo:

Step 1: Identification of national priorities by central Government

The research found that each line ministry identifies national priorities based on official programs namely Sustainable Development Goals, Rwanda Vision 2020, Economic Development and Poverty Reduction Strategy II, 7 Year Government Program, Policies, Leadership retreat resolutions, National Dialogue, and Cabinet resolutions. The principle followed is to point out programs to which resources are earmarked; else if resources are not yet earmarked to those priority activities, the ministries mobilize those resources at local or national level. The Central government plays an important role of prioritizing listed activities starting from areas of quick wins, synergy and avoiding duplication.

Step 2: Communication of national priorities to local government

The final list of central government priorities defined is first communicated and also discussed with local government leaders in a forum gathering Central and Local Government leaders.

Step 3: Identification of local priorities

All Districts have the so- called “DDPs” (District Development Plan). This is a key document of reference while defining Imihigo at District level. The final draft of Imihigo is discussed through consultative meetings with different stakeholders at concerned level either Province/Kigali City, Districts, sector, cell or village level. The aim of the discussions is for consolidating the emerging priorities.

Step 4: Preparation and approval

The discussions described in previous text culminate in approval of the final Imihigo document that has to be implemented during the year.

Step 5: Presentation of priorities to stakeholders

The Implementation of Imihigo involves different stakeholders. It is under the responsibility of the institution concerned to gather its stakeholders and present the final approved Imihigo.

Imihigo Quality Assurance

For effective planning of Imihigo, due to synergy between all government institutions, for overcoming the lack of knowledge in terms of Imihigo planning, a Quality Assurance Technical Team is set up for assisting the Districts and provinces/Kigali City to prepare tangible imihigo responding to the national targets. The Team is composed of PRIMATURE, MINALOC and MINECOFIN and it gives regular feedback to District planners during the process of preparation of imihigo.

2.3.3.3. Main areas of Imihigo targets across clusters

The main areas of Imihigo targets are activities that impact positively on the socioeconomic development of the local population especially in water access, transport, energy access, schools; activities creating jobs; activities that create opportunities for income generation; activities that have positive impact on poverty reduction (GoR, 2016).

Three main clusters targeted by Imihigo are: Economic, Social and Good governance. This research is about the impact of Imihigo on the socioeconomic development and so it did not focus on good governance. However, in this following text, it is going to give a brief overview of all three clusters whereby outlining the main activity (variable) and its sub activities (sub variables).

Economic cluster

Under economic cluster, the main sectors of economic activities are mainly agriculture, infrastructure, entrepreneurship and business development and natural resource management GoR, (2016).

Agriculture: the main activities planned under the sector are namely irrigation and mechanization; land use consolidation; crop production; use of fertilizers; and distribution of cows.

Infrastructure: the main activities planned under the sector are namely road construction (feeder, tarmac and cobb stone); electricity (connectivity and access by households); streets lights; access to water; construction of public facilities (offices, schools and health posts); construction private business investment (commercial complex, hotels, guest houses); and rural settlement.

Entrepreneurship and business development: the main activities planned under this sector are namely support to women and youth cooperatives (financial, materials and toolkits); training of women and youth; and creation of off-farm jobs through Vision Umurenge Program (VUP).

Natural resource management: the main activities planned under this sector are namely tree planting/ forestry; radical and progressive terracing; biogas and improved cooking stoves; and inspection of mining.

Social cluster

Education: the main activities planned under this sector are namely early child development; adult literacy; dropout; nursery school; and reading festival.

Health: the main activities planned under this sector are namely health insurance; women delivering in health facilities; family planning; rehabilitation of health centers; and hygienic inspection of public facilities.

Graduation from poverty: the main activities planned under this sector are namely VUP projects; shelter (construction and rehabilitation); construction of markets for street vendors and other social protection programs.

Governance and justice cluster

The main activities planned under this cluster are: participation in umuganda; auditor's general recommendations; training in ICT and other areas governance months; audit of District entities; address of citizen complaints; judgment of executed/ Gacaca; knowledge hub installed; inspection of public entities; design and update of sector website.

2.4.The Implementation of Imihigo

According to IPAR (2015) the general concept is to implement all planned Imihigo activities during the fiscal year to create progress in achieving development goals and to cause an impact and improve the quality of life of people living in a District. The implementation of a Ministry targets is done by the Ministry and District's targets are executed by the District and other sub-District level entities namely the sector (Umurenge), the cell or even the household. Thus, for fully implementing a target, all decentralized levels need to work together. As example, a target like 100% health insurance must start on the family level. During the implementation certain aspects play a crucial role: the contributions of the population and funding gaps, the collaboration with partners as well as unexpected events during the implementation process.

Motivating the population to participate in the implementation of Imihigo activities is generally no challenge, especially when they foresee the direct benefits out of pledged activity targets for example, contributing in the construction of schools, so that their children can attend school; land use consolidation so that they can increase their crop production. To assure the continuation of the contributions of the population, the mobilization of the population by the District has to be high.

Bizoza (2011) found that the Districts and other administrative entities need to motivate their citizens and discuss with them the choice and the progress of Imihigo targets. It is clear that the participation and contributions of citizens, but also of other stakeholders working in a sector or a District, are crucial, because this is one of the major reasons for failure or success of implementing an activity. Such collaboration is also one indicator for the quality of the relationship between authorities and citizens. Trust, honesty (*ubunyangamugayo* or *ubupfura*) and the shared notion of mutual assistance (*umutima wo gufashanya*) are the collaterals of the relationship between authorities and citizens. If there is no trust between District's authorities and the population and no commitment of the population towards Imihigo, mobilization will be difficult.

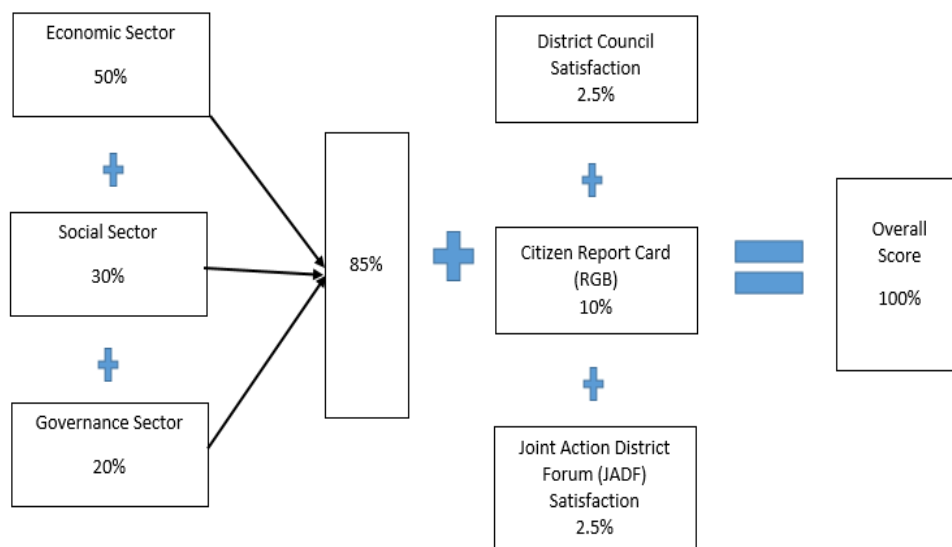
2.5. The Evaluation of Imihigo

Every year, the evaluation of Imihigo was traditionally led by a committee comprised of representatives from the President’s Office, the Prime Minister’s Office, the Ministry of Local Government, and the Ministry of Finance and Economic Planning. Since 2014, however, the Institute of Policy Analysis and Research (IPAR-Rwanda) has been invited to carry out the evaluation and provide an independent view on the extent to which Imihigo targets are attained (IPAR- Rwanda, 2017).

Institute of Policy Analysis and Research of Rwanda (IPAR) has defined the following balanced scorecard used in evaluation of imihigo.

Balanced scorecard for District Imihigo

Figure 1: Balanced scorecard for District Imihigo



Source: Author’s computation of data provided by IPAR, 2015.

According to the figure above, Imihigo targets mainly the economic development. This is indicated by the share of 50% of the total clusters. The second is social development occupying 30% of the total clusters. Those two main clusters attracted this research because they are the priority ones, totalizing 80% of clusters.

Imihigo scoring

At the end of the year, all Districts are evaluated at 100% and ranked. The following table shows how the marks are scored.

Imihigo score is scheduled as the following intervals:

Table 2: Imihigo scoring per completed activities

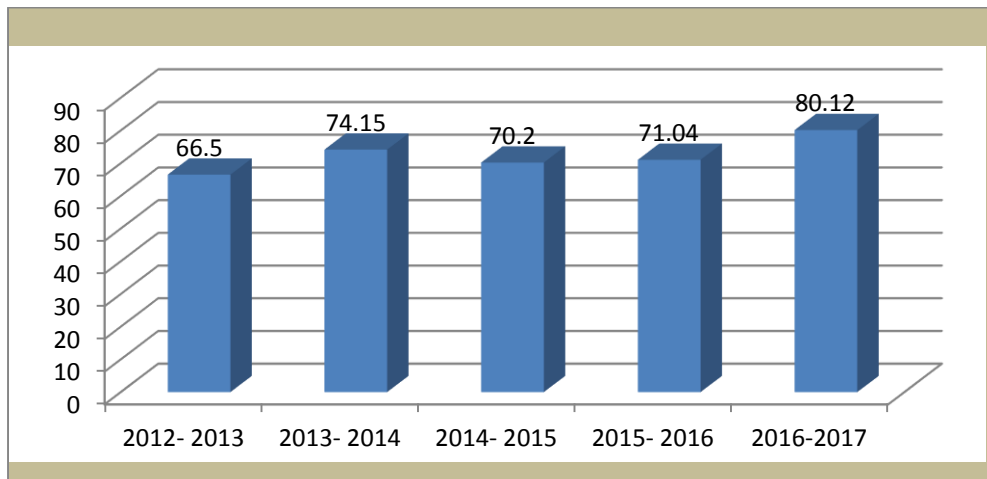
Percentage (%) implementation of completed activities	Score
100- 90	10
89- 80	9
79- 70	8
69- 60	7
59- 50	6
49- 40	5
39- 30	4
29- 20	3
19-10	2
9- 5	1
4- 0	0

Source: Author’s computation of data provided by RGB (n.d).

2.6.Overall Gakenke District performance during 2012- 2017

Gakenke District has shown impressive achievements in imihigo during past 5 years. The summary of such achievements is shown by the following figure:

Figure 2: Gakenke District Performance Overall Score



Source: Author’s computation of data provided by IPAR (2017).

Concerning the rank, the District of Gakenke passed from 30th rank in 2012- 2013 to 4th rank over only 5 years in 2016- 2017. To achieve this impressive position, the District occupied the following position 15th, 24th and 27th respectively during 2013- 2014; 2014- 2015; 2015- 2016.

3.8. Summary to the chapter

This chapter was about origin and development of Imihigo system. The chapter showed that current Imihigo system consists of hybrid of traditional and modern system. In traditional Imihigo were at individual level and targeted mainly the results; today's Imihigo has conserved the traditional character of being individual- here Imihigo are defined starting from individual level; but they mix modern techniques of accountability. Imihigo passed from individual character and attained institutions. The government of Rwanda adopted Imihigo for promoting the socioeconomic development of the population with the aim of ending poverty towards middle income economy through Vision 2020. The following chapter is going to describe the socioeconomic development.

CHAPTER 3: UNDERSTANDING OF SOCIO-ECONOMIC DEVELOPMENT

3.1. Definition and components of socio- economic development

Development

Fritz (n.d) defines development as a planned and comprehensive economic, social, cultural and political process, in a defined geographic area and aims to continually improve the well-being of the entire population and all of its individuals.

Thomas (2017) assimilated the concept of development as “living well”. The study used holistic approach to development. The author reiterated the theory of Amartya Sen according to which sees the development as concerned with the achievement of a better life and recommending that the focus of development analysis has to include the nature of the life that people succeed in living incorporating the length of the life itself. By development, people value their ability to do certain things and to achieve certain types of beings such as being well nourished, being free from avoidable morbidity, being able to move about as desired. These "doings" and "beings" were called by Sen as "functionings" of a person. This Sen’s view is shared with Adam Smith (1776) and Karl Marx (1844) affirming that the well-being of a person can be evaluated through the functionings achieved by the same person. The author specify that the achievement of functionings depends not only on the commodities owned by the person, but also on the availability of public goods, and the possibility of using private goods freely provided by the state. Such achievements as being healthy, being well-nourished, being literate, etc. Functionings depend also on the public provisions of health services, medical facilities, educational arrangements, and so on.

Fritz (n.d) distinguishes three components of socioeconomic development namely: Social development; Economic development; and Environmental protection. These elements are described in the following text.

Social development

According to Fritz (n.d) social development includes policies and programs dealing with income, poverty, employment, employment security, education, health, crime and civic participation.

Applying this classification to Imihigo program the key priorities of the social development pillar of Imihigo include projects for eradication of poverty, improving education and health infrastructure as well as increasing access in both areas. The key outputs in education comprise enhancing the quality of education and the multiplication of vocational and technical training centres (TVET) with the aim of improving access to employment among the youth through skills development. As for health, key outputs are targeted towards increased coverage of community health insurance, health hygiene, sanitation and social facilities and sustaining the fight against malnutrition against children under five years of age (IPAR, 2014).

Economic development

Feldman et al. (2016) define economic development as the expansion of capacities that contribute to the advancement of society through the realization of individual, firm and community potential. Economic Development is measured by a sustained increase in prosperity and quality of life through innovation, lowered transaction costs, and the utilization of capabilities towards the responsible production and diffusion of goods and services. Economic Development is essential to creating the conditions for economic growth and ensuring economic future.

Environmental protection

Environmental protection is practiced for protecting the natural environment on individual, organization controlled by governmental levels, for the benefit of both the environment and humans. Among regulations of Environmental Protection Act (2002), two attract the attention for this research namely: protection of the environment for the present and future generations and protection of human health; the economic organization of environmental protection activities (SG No. 98/18.10.2002). The main aim of Environmental protection is to ensure sustainability of life whereby socio economic development is pursued for the present without compromising the future generations.

3.2. Socioeconomic indicators

Carley & Bustelo (2012) list the following socioeconomic development indicators grouped under 6 themes namely Demographic and health; Educational and cultural; Employment (Labor market); income and poverty; housing and urban infrastructure; quality of life and environment. The following are indicators per theme:

Table 3: Socioeconomic indicators

Theme	Indicators
Demographic and health	Birth rate, demographic increase rate, child mortality rate, life expectancy at birth, rate of death per causes, morbidity and health attendance, under nutrition, malnutrition rate.
Educational and cultural	Illiteracy rate, average schooling, information and culture access
Employment	Unemployment rate, average income
Income and poverty	GDP per capita, average familiar income, Gini Index, Index, Poverty rate
Housing and urban infrastructure	House condition, urban services accessibility, transport infrastructure
Quality of life and environment	Satisfaction with house, neighborhood, city and basic infrastructure, crime and homicides, environment (air condition, water, waste treatment, garbage collection)

Source: Carley & Bustelo (2012).

3.3. SDGs, global conjugated efforts towards socio- economic development

A Report of the Inter-Agency and Expert Group of United Nations on Sustainable Development Goal Indicators shows that the whole world conjugated efforts to set the goals towards improving socio- economic of the citizens. On 1 January 2016, entered into force 17 Sustainable Development Goals (SDGs) of the 2030 agenda for sustainable development that have been adopted by the World Leaders (193 UN Members) on 27 September 2015 at UN Summit. By implementing those goals, countries will mobilise efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind. The new Goals call for action by all countries, poor, rich and middle-income to promote prosperity while protecting the planet (UN, 2016).

The report recognise that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection. While the SDGs are not legally binding, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals. Countries have the primary responsibility for follow-up and review of the progress made in implementing the Goals, which will require quality, accessible and timely data collection. Regional follow-up and review will be based on national-level analyses and contribute to follow-up and review at the global level (Idem).

The report lists 17 SDGs with 169 accompanying targets proposed by the Open Working Group on the Sustainable Development Goals (OWG) and endorsed by UN Secretary-General in the synthesis report *The Road to Dignity by 2030*. The goals and their targets directly related to the socio- economic development are summarized in the following table:

Goal 1: End poverty in all its forms everywhere

Eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day; reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions; Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable; ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

End all forms of malnutrition; double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment; Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality; Maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species; Increase investment.

Goal 3: Ensure healthy lives and promote well-being for all at all ages

Reduce the global maternal mortality ratio to less than 70 per 100,000 live births; End preventable deaths of new-borns and under-5 children;

End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases; Halve global deaths from road traffic accidents; Ensure universal access to sexual and reproductive health care services; achieve universal health coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes; Ensure equal access for all women and men to affordable quality technical, vocational and tertiary education, including university; build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

Goal 6: Ensure availability and sustainable management of water and sanitation for all

Achieve universal and equitable access to safe and affordable drinking water for all; Achieve access to adequate and equitable sanitation and hygiene for all.

Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Ensure universal access to affordable, reliable, and modern energy services.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors; Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage formalisation and growth of micro, small- and medium-sized enterprises including through access to financial services; Strengthen the capacity of domestic financial institutions to encourage and to expand access to banking, insurance and financial services for all.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all; Promote inclusive and sustainable industrialisation; Upgrade infrastructure and retrofit industries to make them sustainable.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums; Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Ensure conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and dry lands, in line with obligations under international agreements; combat desertification, and restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation neutral world.

3.4. Rwanda's efforts in improving socio- economic development

Since 2000 with Vision 2020, Rwanda has undertaken a series of actions tackling poverty towards effective socio- economic development of citizens. The main programs and their achievements are described in the following text.

3.4.1. Anti- poverty programs towards socio-economic development in Rwanda

The main anti- poverty programs developed by the government of Rwanda in line with improving the socio- economic development of citizens are the following:

Vision 2020

Rwanda Vision 2020 is built upon six pillars such as: good governance and an efficient State, skilled human capital, vibrant private sector, world class physical infrastructure and modern agriculture and livestock, all geared towards prospering in national, regional and global markets (MINECOFIN, 2012).

EDPRS II

The goal of Economic Development and Poverty Reduction Strategy II 2013- 2018 aimed at Accelerating progress to middle income status and better quality of life for all Rwandans through sustained average GDP growth of 11.5% and accelerated reduction of poverty to less than 30% of the population. Five priority areas have been outlined by the strategy; Increase domestic interconnectivity through hard and soft infrastructure; Boosting exports in increasing external connectivity; Sustain Private Sector by increasing investment; Facilitate and Manage urbanisation; and pursue Green Economy. The Strategy targeted also to improve Rural Economy by Increasing agricultural productivity, improving land use and human settlement; improving infrastructure for connecting rural area to economic opportunities. For Youth, the Strategy planned developing entrepreneurship, access to finance and business development (MINECOFIN, 2013).

VUP

According to MINALOC (2007), Vision 2020 Umurenge is a social protection and development program officially launched in March 2007. In 2010/11 it operated in 90 of Rwanda's poorest sectors, three sectors per District. The program has three components: The Public Works component that deals especially with community assets development projects that generate employment for the local population; The Financial Services component (increasing access to financial services sector, microcredit and a challenge fund);

Direct Support cash transfers to the most vulnerable households in the population. Currently, the program includes Extended public works sub program targeting people unable to participate in public works for different purposes and Minimum package sub program financing economic activity chosen by the beneficiaries.

Ubudehe

According to LODA (2010) Ubudehe approach has been established by the government of Rwanda as one of the strategies for poverty reduction, and is commonly used especially by VUP sectors in terms of planning as well as data collection.

Ubudehe Process can serve as a pro poor credit channel. Initially, the Government supported poor people by direct support where people received money from the State. Such approach has grown into Ubudehe Loan/Credit where the Government trains poor people producing by themselves by offering them credit with an interest rate of 2%. This is done via Saving and Credit Cooperatives (SACCO). The community members in general as well as the designated clients for next rounds of credit will play a major role in monitoring the advanced loans and in recovering the loans since the Ubudehe Credit Fund is a community Fund.

Land Use Consolidation and Crop Intensification Program (CIP)

Studies that were carried out much before the Land Policy and Land Law were passed in 2004 (Bizoza et al 2013 , Kathiresan 2012, Huggins 2012, Muhinda & Dusengemungu 2013, Onguka 2013). Most of these were on agricultural production, intensification and land use in Rwanda in the 1908s through 1990s. They all pointed to a growing pressure exerted on agriculture by a growing population under limited productivity enhancing techniques. In the Organic Land Law No. 08/2005 of 14 July 2005, Land Consolidation is “a procedure of putting together small plots of land in order to manage the land and use it in an efficient manner so that the land may give more productivity” (MINIJUST, 2005). The CIP was initiated in September 2007 to increase the agricultural productivity of high potential food crops and to provide Rwanda with greater food security and self-sufficiency.

One Cow per Poor Family and construction of house to the vulnerable people

Launched by President of Rwanda H.E Paul Kagame, the Government of Rwanda approved the One Cow per Poor Family Programme in 2006. The Programme works in two steps: First, a poor family receives a cow free of charge. Second, when the initial cow reproduces, the first female calf is given to a neighbour who passes on a female calf to another neighbour, and so on. One cow per poor family project and construction of house to the vulnerable people found out that one of the most important benefits that have been derived from this program is the improvement of soil fertility. This is through the application of organic fertilizer to their crops thus increasing crop production. The beneficiaries do not only use the organic fertilizer in their fields but also give it out to friends and neighbours, thus the community is able to also benefit from the programme as a whole. Cows enabled people to fight against malnutrition and to generate incomes (UNICEF, 2011).

BDFs and SMEs Support

BARUNGI (2017), as part of the financial infrastructure to promote SMEs, BDF was established in 2011 as a wholly owned subsidiary of the Development Bank of Rwanda (BRD), with the objective of assisting SMEs to access finance, particularly those without sufficient collateral to obtain credit from traditional financial institutions at reasonable rates. BDF's role was to promote alternative financing avenues at reasonable costs to help small businesses access credit by providing credit guarantees, Quasi-Equity support to start-up, managing matching grants, SACCO Refinancing, and business development advisory services. Eligible candidate gets from his SACCO 100% funds necessary to cover the cost of necessary toolkit/Equipment to start his/her small enterprise. A percentage of the funds varying between 20% and 50% constitutes a BDF Grant to the beneficiary and the remaining is a SACCO loan to the beneficiary to be paid back according to the terms of a loan contracted to be signed with the SACCO.

SACCO Increasing Access to Finance

According to Nibeza 2015, the ultimate objective of Rwanda's long term development plan is to transform the country into a middle-income country and an economic trade, communication and financial hub by the year 2020. Towards the achievement of this goal, the Government of Rwanda has recently adopted an Economic Development and Poverty Reduction Strategy (EDPRS), with Financial Sector Development as one of its key components. Indeed Rwanda's economic development agenda can't be achieved without a financial sector that is effective, in particular that is capable to expand access to credit and financial services, and to enhance saving mobilisation and to mobilise long-term capital for investment. To address the issues the National Dialogue Meeting held in December 2008 recommended the creation of at least one SACCO at the level of each Administrative Sector (Umurenge). Today, Rwanda covers 416 Imirenge SACCO equivalents to 416 administrative sectors.

3.5. The contribution of Imihigo in improving socioeconomic development in Rwanda

Institute of Policy Analysis and Research (IPAR- Rwanda) analyzed Imihigo performance in Rwanda. Considering the socio economic development, the research outlines the following key achievements: 225865 jobs were created over 205161 planned (110.1%); 99742 households accessed to electricity over planned 179148 (55.7%), 650094 households accessed clean water over 698355 planned (93.1%). 83 km of roads (tarmac) was constructed over 85 km planned (98.5%), 1656 km of road (maramu) were constructed and rehabilitated over 1718 km planned (96.4%). 1438740 ha of land were consolidated over 1485309 ha planned (96.9%). 3 metric tonnes (MT) was produced in average yield for priority crops- Maize (MT/Ha) over 4 MT planned (92.6%), for beans, 2 MT out of planned 2 MT was produced as averaged yield for priority crops- Beans (MT/Ha) (100%). 4766 ha of radical terraces constructed over 5013 ha planned (95.1%), 272 ha of terraces were valorized over 270 ha planned (100.7%). 183091 ha of trees were planted for reforestation over 179040 ha planned (102.3%). 34052 cows were distributed under the Girinka Program over 33171 cows planned (102.7%). 835 of Biogas Digesters were achieved by both households and institutions over 977 planned (85.5%). 19930 of people were supported through SMEs by BDF over 18193 planned (109.5%). 425 classrooms were built over 426 planned (99.8%). 9 TVET schools were built out of 9 planned (100%). 24 health posts were completed out of 24 planned (100%). 10 health Centres were completed out of 10 planned (100%). 3 Maternity were constructed/completed over 3 planned (100%). 93.9% of health insurance were paid over 96.6% planned (87%). 160794 benefited from VUP over 136870 planned (117%). 72 Women, Youth cooperatives were created over 70 planned (103%) (IPAR, 2017).

IPAR- Rwanda is a research institution mandated for analyzing Imihigo performance since 2014. This led to affirm that the data presented in this report are true as provided by an independent institution mandated to run such research in Rwanda.

African Development Bank (2012) analyzed performance contracts and social services delivery using a lesson from Rwanda. The research explores the contribution of Imihigo to improvements in social service delivery in Rwanda and examines its challenges and opportunities. The research found positive impact of Imihigo on socioeconomic development.

Indicators outlined by the research are: the construction of rural roads, the expansion of access to clean water, complete eradication of grass thatched houses through a national campaign called bye-bye Nyakatsi, and increased agriculture productivity and livestock. The population covered by health insurance schemes increased from 70 % to 89% between 2006 and 2011, and 74.2% of citizens feel that they are actively participating in local decision making and that local government is listening and addressing their priority concerns, from the baseline of 65% in 2006 (AfDB, 2012).

AfDB (2012) affirms that cited national outcomes have been achieved because ordinary citizens are given a greater role in policy formulation and evaluation, and officials at all levels are specifically thinking about Imihigo with a focus on results. However, despite such achievement, the research list the following main challenges: inadequate skills in monitoring and evaluation, especially at the Local Government level; weakness in data management; limited resources competing against large expenditure needs; delays in disbursements, especially in relation to donor funds; weak capacities in procurement planning by Districts; and lack of expertise in managing large contracts, especially infrastructure related projects; and frequent changes in leadership disrupted implementation progress of some of their key programs and forced donors to reallocate funds originally budgeted under their performance contract to other Districts.

Honeyman (2017) analysed accountability practices and policies in Rwanda's education system focusing on the impact of imihigo on education. The research compared three Districts namely Ruhango, Ngororero and Gicumbi. The research appreciates the achievements of Imihigo on improving the construction of physical schools' infrastructure. On The other side, the research found that improving the quality of education continues to be a challenging issue in Imihigo system. On the quality side, the research found some cases of Imihigo including dropout or inclusion school visits as for the cases for respectively Ngororero and Ruhango; but in general the research recommends setting of effective quality-relevant objectives in Imihigo plan for effective quality of education.

Different researchers analyzed the challenges of Imihigo: Chemouni (2014) and IPAR (2015) found that the pressure exerted by the Imihigo may have some unintended negative consequences. There have been some allegations that local officials may resort to falsifying data in order to improve their performance against Imihigo targets.

In fact, the centralized evaluation system includes an audit of District data and claims. Musoni (2015) found another concern about which local leaders may try to prevent subordinates or members of the general population from speaking up during evaluations and other visits from higher-up authorities, a factor that has led to at least one recent resignation. Mugabo (2015) found that local leaders sometimes transfer to the population the pressure they are under to meet Imihigo objectives, by pushing people undertaking efforts that may not be within their capacity or among their top priorities. The author give the example of students being dismissed from school for not paying their school lunch fees to achieve an Imihigo target of 100% contributions to the school feeding program.

3.6. Summary to the chapter

This chapter described the socio- economic development whereby it defined different components of the socio- economic development, it outlined the socio- economic indicators, it showed how the whole world conjugated efforts in promoting the socio- economic development of the population through SDGs, and the chapter showed Rwanda's efforts in promoting the socio- economic development of the citizens through different anti- poverty programs. The chapter summarized key achievements. The chapter ends by outlining the link between the described socio- economic development and Imihigo program. The following chapter describes the methodological process followed by the research in investigating the contribution of Imihigo on the socio- economic development.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.0.Overview

This chapter describes the methodology used in analyzing the impact of Imihigo on the socioeconomic development in Rwanda using Gakenke as a case study. The research describes the research design, research variables, research population, sample size and sampling techniques, research instruments, data collection techniques, data processing and data analysis, quality control, ethical consideration.

4.1.Research Design

This research used a mixed of exploratory, descriptive, explanatory and evaluative research design. In fact, the researcher explored important activities (facts) realized by Imihigo and improving the socioeconomic development of the population namely schools, health centers, agriculture, infrastructure, environment protection. These are tangible and observable indicators of Imihigo achievements. The research not only explored them but also described them by outlining the statistical data related to such facts. Explanations were used using testimonies and data collected from the population. The research used evaluative design to attain the aim of assessing the contribution of Imihigo as a government program with clear targets. The research evaluated the performance on socioeconomic development of the population.

4.2.Methods and techniques

This research used a mixed of quantitative and qualitative approaches (Almalki, 2016). In fact, the research collected and analyzed numerical data using quantitative method; and non-numerical data collected through qualitative method was necessary to support numerical data. Concerning the techniques used, during data collection, the research used archival review. By this technique, the researcher prepared a questionnaire in form of tables related to variables of the research and filled the tables using secondary data collected from “Imihigo Annual Reports Gakenke” during the period of the research. For supporting the collected data, the research used a questionnaire that was filled by community leaders. Qualitative data was collected through interview, focus group discussions, telephone calls and personnel observations.

4.3.Variables and their relationship

Kwan and Wolf (2002) distinguish the term for the cause as independent variable; the term for the effect as dependent variable. A series of cause constitute a series of independent variables. The research on the contribution of Imihigo on socioeconomic development in Rwanda using a case study of Gakenke District analyzed two variables: Dependent variable and Independent variable.

Dependent variable

Dependent variable of this research is “Socioeconomic development”. This variable is dependent on Imihigo activities. In fact, in the context of Imihigo, the socioeconomic development of the population improved or worst depending upon activities planned in Imihigo program.

Independent variables

Independent variable of this research is “Imihigo activities”. In fact, Imihigo activities can be planned for other sector of life out of socioeconomic development. Imihigo is free to be oriented in different domains of life. Imihigo do not dependent on socioeconomic development of the population. Imihigo influence the socioeconomic development.

Imihigo activities constitute independent variables (or intermediary independent variable). Independent variables used by this research are in reference to the variables used by Institute of Policy Analysis and Research (IPAR- Rwanda) while analyzing Imihigo performance in Rwanda (IPAR, 2017).

Independent variables under Economic Development Cluster

Under Economic Development, the research assessed the following variables:

- Agriculture: Under this variable, the research assessed increased productivity, for maize, beans and wheat; land consolidated; banana rehabilitated; radical terraces constructed; areas irrigated; households with kitchen garden well maintained; number of cows inseminated; number of cows vaccinated; export promotion through hectares of coffee planted, tones of coffee cherries received and tones of fully washed coffee.

- Environmental protection: Under this variable, the research assessed number of hectare of new forest and agro- forest planned; and hectares of bamboo planted on Mukungwa and Kinoni rivers.
- Infrastructure: This variable is analyzed under its sub variables namely:
 - ICT: Under this variable the research assessed the number of sectors head offices installed with internet infrastructure; and number of women and men trained in ICT.
 - Energy: Under this variable, the research assessed the number of households connected to electricity; and the number of domestic bio gas installed.
 - Urbanization and rural resettlement: Under this variable the research assessed the number of households relocated from scattled areas and high risk zones settled in planned imidugudu sites.
 - Water and sanitation: Under this variable, the research assessed the number of households with access to clean water.
 - Transport (roads and bridges): Under this variable, the research assessed the length in km of road and bridge rehabilitated.
- Entrepreneurship: By entrepreneurship the research analyzed productivity and your employment level by assessing the number of off- farm jobs created; the number of ICPCs cooperatives supported to acquire equipment through leasing scheme; the number of start-up SMEs for youth and women coached; number of TVETs graduates who received startup toolkit loan; the number of agribusiness projects graduates which received start- up capital; the number of SMEs supported access finance through BDF grantee and grant scheme; the number of semi- skilled and unskilled youth, women and persons with disabilities trained under massive vocational trainings (MVT); number of existing productive craftsmen and artisans in ICPCs upgraded with skills and awarded certificates; and number of adults using financial services.

Independent variables under Social Development Cluster

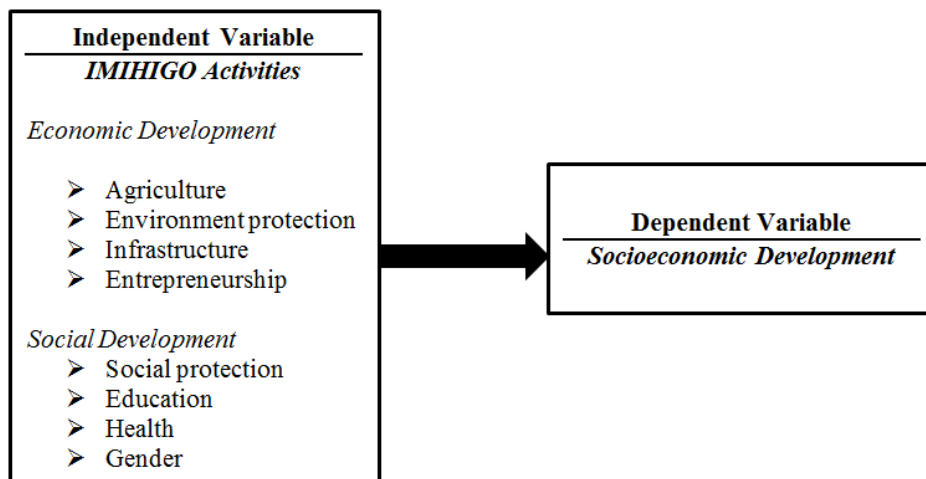
Under Social Development, the research assessed the following variables:

- Social protection: Under this variable, the research assessed the following sub variables:
 - VUP: Under this variable, the research assessed the number of households employed in public works; the number of extreme poverty covered by Direct Support; the number of people under extreme poverty granted Financial Service.

- Girinka program: Under this variable the research assessed the number of families received cows
 - Nutrition: Under this variable the research assessed the number of children aged 6 to 24 months who received FBF (fortified blended food) fighting malnutrition.
- Education: Under this variable, the research assessed the number of classrooms/ toilets constructed; students’ enrollment in 9 and 12 YBE; number of adult trained in adult literacy.
- Health: Under this variable, the research assessed the number of health centers and health post constructed/ rehabilitated; number of women using contraceptive; number of people with access to health insurance; number of women with skilled birth attendance to health services.
- Gender: Under this variable, the research assessed the number of utugoroba tw’ababyeyi conducted in all villages.

The relationship between variables can be schematized in the following figure:

Figure 3: Research Variables of their Relationship



Source: Author, 2018.

4.4. Research Population

In order to collect secondary data related to the performance of Imihigo program by assessing activities achieved, the research included the following persons: At District level, the research included the Mayor of Gakenke District, the Vice Mayor in charge of economics, the Vice Mayor in charge of social affairs, and the District Planner Officer (4 person).

At sector level, the persons included are 19 Sector Executive Officers for 19 administrative sectors (19 persons); At cell level, the research included Social and Economic Development Officers (97 SEDOs); At Village level, the research included 617 community leaders.

The total population involved in the research was: 737 persons. The bottom line of participants to the research is composed of community leaders because they are the one living in touch with the population and mandate to organize Imihigo planning and evaluation at Umudugudu level. The researcher completed their information by personnel observation.

4.5. Sample size determination

Barreiro and Albandoz (2001) affirms that a sample is deemed necessary because it is not possible to carry out an investigation over the whole population due to constraints of resources, time and money. To determine the sample population for local administrative leaders who responded to the questionnaire, the research used Slovin's formula stating that:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n= sample population; N= total population; e= the standard margin of error at 90% confidence interval, which is equal to 10% or 0.1.

By applying the formula to the research, the sample population is calculated as the following:

$$= \frac{617}{1 + 617 * (0.1)^2} = \frac{617}{1 + 617 * 0.01} = \frac{617}{1 + 6.17} = \frac{617}{7.17} = 86.02 \approx 86.$$

The results of the application of the formula show that the research involved 86 community leaders.

4.6. Sampling techniques

The research involved 86 village leaders who responded to the questionnaire and participated in focus group discussions as well as in interview. To determine them, the research used simple random sampling whereby each village leader had equal chance to be selected. However, the researcher mixed both sexes where each sector was represented. Simple random sampling was also used while determining 3 executive secretaries of 3 sectors as well as in determining 20 SEDOs to respond to the interviews

4.7.Data collection Instruments

The following are instruments use to collect data:

Archival Review

The statistical data related to the achievements of Imihigo are already assessed and stored in “Imihigo Annual Reports Gakenke”. Archival review as instrument of data collection was used whereby through a questionnaire in form of tables. The researcher filled the questionnaire guide by copying data from reports to the prepared tables. This questionnaire was not in form of questions to be answered by somebody else; It was a structured questionnaire based on variables and designed as a tool to facilitate the collection of data. In this sense, the archival review differs from the questionnaire described in the following text.

Questionnaire

The data collected through archival review were collected by the government. And it has been noted that possibly local administrative leaders false statistics. To support the data resulting from archival review, the research used a questionnaire that was filled by the community leaders. 86 community leaders responded to this questionnaire. The questionnaire comprised two main sections: one for economic development; another for social development. The main questions were about the changes brought in by Imihigo system; examples of Imihigo impact if any; potential challenges; and mechanisms for improving Imihigo system and making it effective tool of development.

Structured interview

A structured interview was used to get information from local administrative leaders in order to corroborate the data provided by Imihigo annual reports and results from village leaders. Interviewed are: the Mayor of Gakenke District (1 person), the Vice Mayor in charge of economics (1 person), the Vice Mayor in charge of social affairs (1 person), and the District Planner Officer (1 person), 3 Sector Executive Officers Social, and 20 SEDOs. A designed questionnaire was sent before for facilitating the respondents.

Focus group discussions

The research organized 3 focus group discussions of 5 community leaders each; and 3 focus group discussion of 13 SEDOs per 3 sector (4 for Gakenke, 4 for Nemba, 5 for Gashenyi).

Personnel observations

The research went on- filed to observe the physical existence of tangible facts outlined as being achieved through Imihigo such as the roads and bridges. This was for being more in touch with the reality. The researcher visited Gakenke- Muzo- Janja road and Mukinga bridge joining Gakenke and Musanze and which cost 80 million of Rwandan francs.

Telephone calls

During the research, the respondents mentioned some examples of economic activities achieved through Imihigo being implemented in other sectors. The researcher used telephone calls to get more information about them. The examples are Bamboo planted on Mukungwa and Kinoni Rivers.

4.8.Data processing and Data analysis

The data collected by the researcher was in raw form and it needs to be edited, organized and analyzed. Microsoft Office Excel was used as a tool designed by the Microsoft to produce information in forms of tables, statistics and figures allowing easy interpretation.

Memobust Handbook (2014) defines data editing as a technique of detecting errors and correct them. In fact, during data collection some errors can occur such as spelling, grammatical mistakes, omissions and other types. With data editing the researcher makes sure that all responses are now very clear to understand. Saldaña (2013) defines data coding as an analytical process in which data, in quantitative form or qualitative form are categorized to facilitate analysis. Collected and edited data needs to be categorized so that the information will be produced in understandable categories. Data coding process is followed by tabulation where data are organized into a form of a table having the following key elements: table number, title of the table, caption, stub (row heading). The data processing end by computation where the researcher use a computer to process the data and outline information that can be easily interpreted. The analyzed data was interpreted by comparing the output from this research to previous findings.

4.9. Reliability and Validity control

The researcher needs to check the quality of the tools to use in research in order to achieve valid and reliable information. Quansah (2017) defines quality control as testing the collected data for validity and reliability. Reliability and Validity are important concepts in research as they are used for enhancing the accuracy of the assessment and evaluation of a research work.

Pilot survey

Calitz (2009) defines a pilot study as a mini-version of a full-scale study or a trial run done in preparation of the complete study. Piloting was used by administering a questionnaire to a small sample of 10 village community leaders from Busengo sector and analyzed the results to check if there are no errors in the tool itself, and in the results produced. The aim of piloting was to evaluate the questionnaire before administering it to a target population. The results facilitated to review the questionnaire.

Reliability Test

According to Twycross and Shields (2004), reliability refers to the consistency, stability and repeatability of results. Piloting played important role in testing for reliability.

Validity control

Mohajan (2017) defines validity as the extent to which an instrument measures what it is supposed to measure and performs as it is designed to perform. Yaghmale (2003) affirms that the normal way of testing for validity is through content validity test (CVT) where the following four key elements were analyzed.

Table 4: Elements of Content Validity Test (CVT)

1. Relevance		3. Simplicity	
1	Not relevant	1	Not simple
2	Item need some revision	2	Item need some revision
3	Relevant but need minor revision	3	Simple but need minor revision
4	Very relevant	4	Very clear
2. Clarity		4. Ambiguity	
1	Not clear	1	Doubtful
2	Item need some revision	2	Item need some revision
3	Clear but need minor revision	3	No doubt but need minor revision
4	Very clear	4	Meaning is clear

Source: Yaghmale (2003).

The table above shows that the researcher analyzed the relevant of the questions, their simplicity, clarity and ambiguity. Yaghmale recommends that those questions are scored over 100 and the overall of validity test falls above 78%, lead to good validity of the instruments; else, the questionnaire/ instrument will be reviewed. For this research the instrument was good.

4.10. Ethical consideration

For this research, the dignity of respondents was prioritized. No written consent was freely obtained from the participants prior to the study. All information was kept as privacy, confidential and anonym. The communication in relation to the research was done with honesty and transparency. Respondents to the questionnaire as well as interviews were involved into the research in respect to the freedom of the participation. Interviewees were informed before by a questionnaire. Collected data was treated and stored in a secure way to protect the confidentiality of information received. Such ethical way helped the researcher to gain confidentiality to people and this helped leaders to be open and say everything truly.

4.11. Summary to the chapter

The present chapter described in details how the research was conducted by outlining the methods and techniques used in collecting data, analyzing and interpreting data. The following chapter is about data analysis and interpretation of results. The chapter presents the results in form of table; but also it provides interpretation of outlined percentages for a better understanding. Concerning the discussion of findings and linking the findings to previous researches, this will be provided in chapter five related to findings.

CHAPTER 5: DATA ANALYSIS AND INTERPRETATION OF RESULTS

5.0.Overview

This chapter is about the data analysis and interpretation of results. The analysis follows the objectives of the study. The first section analyses the achievements in socioeconomic development through Imihigo system. In fact, those achievements are based on planned Imihigo where the whole population of Gakenke and their leaders set targets for different sectors of socioeconomic and at the end of the year they evaluate the level of achievements. The second section concentrate on the contribution of described achievements to the socioeconomic lives of the population. The challenges outlined by this research will be described in the next chapter related to the discussion of findings.

5.1.Achievements in socioeconomic development in Gakenke District through Imihigo

This section is about assessment of the achievements in socioeconomic development in Gakenke District through Imihigo system. The variables taken into considerations are: Agriculture, environment protection, infrastructure and entrepreneurship. This section shows realizations achieved through Imihigo system by outlining quantitative data revealing those achievements. The data presented by this chapter are taken from archives of Gakenke District specifically from the Office of the District planning officer.

5.1.1. Achievements in Economic development cluster

Table 5: Achievements in Agriculture (2013- 2018)

<i>Economic activity</i>	Achievements through Imihigo system				
	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
<i>Land consolidated for priority crops (ha)</i>					
Maize	15612	15951	16,552	16594.9	16,786
Beans	20527	20934	21,680	21761.9	22,729
Wheat	762	884	899	899.2	921.50
<i>Average yields (T/ha) of priority crops on consolidated land</i>					
Maize	3.9	5.36	5.6	5.07	5.7
Beans	2.2	3.5	3.53	3.55	3.56
Wheat	2.6	3.45	3.45	3.51	3.58
<i>Increase Agricultural productivity</i>					
Hectares of banana rehabilitated	480	982.6	1010.5	1028.9	1223
Radical terraces constructed (Ha)	502.3	393.24	314	551.51	803.26
Hectare of irrigated marshlands					803.26
Households with kitchen garden			77156	79,391	83897
Number of cows inseminated	6264	5068	5520	4905	7285
Number of cows vaccinated	58100	65286	58448	43100	44005
<i>Export promotion</i>					
Hectares of Coffee planted	150	210.3	318.06	186	111.8
Tones of Coffee cherries received	2085	3602	1635	6,457.45	5018.46
Tones of fully washed coffee			2180.05	968.6	1003.85

Source: Secondary data provided by Gakenke District Planning Office, 2018.

The table above shows that Crop Intensification Program (CIP) is in active in Gakenke District. The priority crops under CIP are: Maize, beans and wheat. Crop Intensification Program (CIP) is a flagship program implemented by the Ministry of Agriculture and Animal Resources to attain the goal of increasing agricultural productivity. Started in September 2007, the CIP program focuses on six priority crops namely maize, wheat, rice, Irish potato, beans and cassava (Cantore, 2010). Another program that is running in agriculture sector is Land consolidation which consists of a procedure of putting together small plots of land in order to manage the land and use it in an efficient and uniform manner so that its productivity is increased (Bizoza, 2013).

The table shows positive results of implementation of Land use consolidation and CIP. In fact, during 5 years, a total of 81,496; 107,632 and 4,365 ha of land were consolidated respectively for maize, beans and wheat priority crops.

The results was the increase of production per hectare passing from 3.9; 2.2 and 2.6 tons per hectare in 2013/2014 to 5.7; 3.56 and 3.58 tons per hectare in 2017/2018 respectively for maize, beans and wheat priority crops.

Other positive achievements of Imihigo system over 5 years outlined by the table above concern banana rehabilitation (4,725 ha); increased construction of radical terracing (2,564 ha); irrigation (803 ha); kitchen garden (240,444 households); insemination of cows (29,042 cows inseminated) together with their vaccinations (268,939 vaccinated cows); planting new coffee trees (976 trees planted) that increased the production of coffee (22,950 tons).

Table 6: Achievements in Environment protection (2013- 2018)

Realizations	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
New forest and agro- forest planted (Ha)	718.5	674	545	736	586

Source: Secondary data provided by Gakenke District Planning Office, 2018.

The table above shows that Imihigo system contributed to environmental protection whereby during 5 years, the District has planted forest over 3,259 ha.

Table 7: Achievements in Infrastructure development (2013- 2018)

Realizations	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
<i>Roads, Bridges, Market constructed or rehabilitated</i>					
Km of feeder roads rehabilitated	14	25	13	46.7	23.4
Number of bridge rehabilitated	1	0	1	0	1
Modern market constructed (phases)	0	1	0	1	1
<i>Access to Energy and clean Water</i>					
HHs with access to clean water	410	978	800	500	769
HHs connected to electricity	0	1112	1661	2377	5982
Number of Domestic biogas installed	60	97	177	66	60
<i>ICT</i>					
Sectors' head offices installed with internet infrastructure	3	4	3	4	5
Women and men trained in ICT use	2300	150	206	209	1138
<i>Urbanization</i>					
HHs relocated from scattered areas to settled Imidugudu	2094	4030	2657	1309	950

Source: Secondary data provided by Gakenke District Planning Office, 2018.

The table above shows achievements in infrastructure development through of Imihigo system. In fact, over 5 years, 122 km or roads were constructed; 3 bridge and 3 modern markets were constructed.

3457 households accessed to clean water, 11,132 households accessed to electricity, 460 households have installed biogas. All 19 sectors offices are connected to internet, 4,003 women and men were trained in computer basics; and 11,040 households were relocated to settled Imidugudu (agglomerations).

Table 8: Achievements in Entrepreneurship development (2013- 2018)

Realizations	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of off- farm job created	4271	2179	3769	5822	6596
Number of start-up MSMEs for youth and women coached			202	80	826
Number of TVET graduates who received start- up toolkit loan			83	123	176
Number of MSMEs supported to access finance through BDF			47	352	28
Number of adult using financial services		6689	7322	9989	6742

Source: Secondary data provided by Gakenke District Planning Office, 2018.

The table above shows that Imihigo system led Gakenke District to some achievements in entrepreneurship development. In fact, over 5 years, 22,637 off- firm jobs were created, 1,108 start-up MSMEs for youth and women were coached, 382 graduates from TVETs received start- up toolkit, 427 MSMEs received support from BDF, 30,742 adult used financial services.

5.1.2. Achievements in Social development cluster

Table 9: Achievements in Social development (2013- 2018)

Realizations	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
<i>VUP, Girinka</i>					
Number of HHs employed in VUP public works	3329	4054	5348	2902	4039
Number of HHS under extreme poverty covered by VUP Direct support	612	715	823	3402	3401
Number of people under extreme poverty granted VUP Financial service			3585	823	4261
Number of poor families received cows through Girinka program		1032	1036	1257	1283
<i>Education</i>					
Number of classrooms constructed	64	68	30	21	30
Number of toilettes constructed	120	0	72	12	36
% of 9 & 12 YBE fed at school			100	100	100
<i>Maternal health, health infrastructure, health insurance, and family planning</i>					
% of women delivered with skilled birth attendance in health facilities	61	95	95.2	96.95	98.3
Health centers constructed/ rehabilitated	1	2	6	1	1
% of access to health insurance	90	92.42	91.91	90.13	93.35
% of women using modern contraceptives (15- 45 aged)	59.3	60.8	61.4	66.5	67.2
<i>Gender equality through Umugoroba w'ababyeyi (Evening parental assembly)</i>					
Number of villages which organized Umugoroba w'ababyeyi sessions			617	617	617

Source: Secondary data provided by Gakenke District Planning Office, 2018.

The table above shows achievements in socio development through Imihigo system. In fact, 48,013 households benefited services from VUP (public works, financial service and direct support), 4,608 households received cows from Girinka program, 213 classrooms and 213 toilettes were constructed, and all students of nine and twelve years basic education are fed at school.

5.2. Analysis of changes brought in socioeconomic development by Imihigo system

The second section concentrates on changes brought in socioeconomic development by Imihigo system. The research used primary data by asking the sample population of 86 village leaders the real effect of Imihigo system on improving the lives of the population.

This section is linked to previous where in the previous one the research assessed tangible facts achieved; and the second section analyses the relationship between facts achieved and the improvement of the live of the population.

5.2.1. Identification of respondents

The following text is about the identification of respondents whereby the research considered considering respectively sex and education level.

Table 10: Number of respondents by sex

Respondents' sex	Freq.	%
Female	35	41
Male	51	59
Total	86	100

Source: Primary data, 2018.

Considering sex category, the table above shows that among 86 village leaders involved in the research, 59% were male against 41% female. Despite in Gakenke District as in Northern Province in general, women are 52.7% against 47.3% men (NISR, 2014); women are less likely to be village leaders. This can be justified by the heavy travels in mountain region to solve problems in households.

Table 11: Number of respondents by education level

Education level	Freq.	%
No education	3	3
Primary	71	83
O' Level	8	9
A' Level	4	5
University	0	0
Total	86	100

Source: Primary data, 2018.

Concerning education level, the majority of respondents attended primary education (83%); 9% attended O' level; 5% attended A' Level whereas 3% have no education level. This is justified by the history of Rwanda where the education sector was developed after the genocide; and the majority of village leaders are adult people (Mathisen, 2012).

5.2.2. Changes brought in economic development by Imihigo system

Table 12: Changes brought in Agriculture through Imihigo system

Change brought in	Results	Freq.	%
Improved agricultural techniques	Increased land consolidation for maize, beans, wheat	86	100
	Reduction of soil erosion through radical terracing and irrigation	86	100
	Increased production of maize, beans, wheat	86	100
	Increased agricultural productivity	86	100
	Increased export production through coffee	86	100
	Improved quality of coffee production	86	100
	Reduction of malnutrition	86	100
	Increased food security and reduction of hunger	86	100

Source: Primary data, 2018.

The table above shows that 100% of respondents affirmed positive contribution of Imihigo system in improving the agriculture sector. The changes brought in by Imihigo are mainly in improving agricultural technology whereby the whole population of Gakenke and their leaders are passing from traditional and subsistence agriculture to modern agriculture. This is indicated by the participation in Land use consolidation and CIP, programs that goes with radical terracing, irrigation techniques together with the use of fertilizers.

Unanimously, 100% of respondents affirmed that through Imihigo system agricultural production was increased and the result was the reduction of hunger and malnutrition through increased food security.

Through interviews and focus group discussions, participants affirmed that some illness caused by malnutrition known in Kinyarwanda as “Bwaki”, “kugwingira” do not exist in Gakenke District nowadays. They affirmed that the production has so increased that they sell over production to markets for financing other businesses. Concerning Imihigo system, they affirmed that before Imihigo, everybody used his/ her soil in disorganized ways and the production was low. Imihigo, on other side, push people working hard to achieve set objectives and the result become positive.

This outcome is supported by the data provided by secondary data as shown in table 7 of this research; and is corroborated by the research conducted by IPAR while analyzing Imihigo performance in Rwanda (2017).

The research found that 3 metric tonnes (MT) was produced in average yield for priority crops- Maize (MT/Ha) for beans, 2 MT was produced as averaged yield for priority crops- Beans (MT/Ha).

Table 13: Changes brought in Environment through Imihigo system

Change brought in	Results	Freq.	%
Increased Hectares of new forest and agro- forest planted	Reduction of soil erosion through planting new forests	86	100
	Soil protection through planting trees in high risk zones	86	100

Source: Primary data, 2018.

The table above shows that Imihigo brought change in environment protection by increasing the area of new forest plantation. The respondents to the research affirmed at 100% that the result from trees planting was the reduction of soil erosion that increased soil protection and this resulted in increased agricultural productivity that in turn affects positively the socioeconomic live in several ways.

This affirmation was confirmed by interviews and focus group discussions. In fact, Gakenke District is covered by several hills where soil protection is required to maintain the life. This finding is supported by the secondary data presented in table 8 of this research; and corroborated by the research conducted by IPAR (2017) where the research found that in 2016/2017, 183091 ha of trees were planted for reforestation over the whole territory of Rwanda.

Table 14: Changes brought in infrastructure development through Imihigo system

Change brought in	Results	Freq.	%
Improved roads, bridges, and market infrastructure	Increased intra- sectors commerce in Gakenke District	83	97
	The local products are sold at appropriate price	74	86
	Increased businesses between Gakenke and Musanze	62	72
	Increased business between Gakenke Rulindo	58	67
	Increased business between Gakenke Kigali City	41	48
Improved access to electricity	Increased use of telephones, computers, and internet	62	72
	Creation of new businesses (Salon, welding, restaurants, etc)	61	71
	Increased time allocated to business (commerce)	45	52
	Improved mindset through access to information (TVs)	39	45
Improved biogas	Contributed to increase electricity spread	12	14
	Introduced a modern way of cooking	5	6
Improved access to clean water	Improved hygiene for body, clothes, meal, etc	59	69
	Water can be accessed at low distance	41	48
	Reduction of diseases caused by poor hygiene	37	43
Access to ICT in rural area	Improved access to trainings in ICT	30	35
	Increase of people using internet	25	29
	Improved communication internally and abroad	10	12
Improved urbanization	People live in village with facilitated access to infrastructure	21	24
	Easy access to services (schools, health centers, administration)	16	19

Source: Primary data, 2018.

In the table above, each question was evaluated at 100% and the table shows the outcomes from respondents. According to the table, different changes were brought in by Imihigo system such as: Improved roads, bridges, and market infrastructure; Improved access to electricity, biogas, clean water, urbanization and access to ICT in rural area of Gakenke.

The results of such positives changes brought in by Imihigo system affected positively the socioeconomic development of the population of Gakenke District in several ways. In fact, through interviews and focus group discussions, respondents affirmed that business movements internal and external Gakenke have improved and clean water contributed to the reduction of diseases linked to hygiene.

These findings are supported by the secondary data presented in table 9 of this research. Different researchers corroborate this findings namely IPAR (2017); African Development Bank (2012) while exploring the contribution of Imihigo to improvements in social service delivery in Rwanda and examines its challenges and opportunities; Bisaga (2017) analyzed the success of Imihigo in increasing access to energy in Rwanda.

Table 15: Changes brought in entrepreneurship development through Imihigo system

Change brought in	Results	Freq.	%
Focus on entrepreneurship	New off- firm jobs are created	62	72
	Increased effectiveness of cooperatives	59	69
	Improved access to finance through BDF and SACCO	31	36
	Increase of confidence in creating own jobs	27	31
	Mindset change towards modern activities (business)	10	12

Source: Primary data, 2018.

The table above outlines changes brought in entrepreneurship by Imihigo system. Each result was evaluated at 100%. The respondents affirmed at 69% that cooperatives increased their effectiveness and Imihigo contributed to new off- firm job creation and business development in general through facilitated access to finance. Interviewed and participants to focus group discussions affirmed that “Imihigo yaradukanguye buri wese asigaye azi gushabika” (Imihigo tired us out of sleeping and everybody is motivated to fight for self- development).

This finding is supported by the secondary data presented in the table 10 of this research and it is corroborated by different researchers namely: Makuza (2012) while analyzing the contribution of Imihigo in improving the social economic development in ten Districts namely Gicumbi, Musanze, Gisagara, Ruhango , Nyamasheke, Karongi, Kicukiro, Gasabo, Bugesera, Kirehe; and IPAR (2017) while analysis Imihigo performance in Rwanda.

5.2.3. Changes brought in social development by Imihigo system

Table 16: Changes brought in social development by Imihigo system

Change brought in	Results	Freq.	%
Improved socio protection programs	Increase of livestock production through Girinka	86	100
	Poorest people are assisted through VUP and Ubudehe	86	100
Improved education	Improved school enrolment	86	100
	Improved class attendance through school feeding	74	86
	Improved hygiene at school through new toilet constructed	61	71
	Increased number of classrooms reducing overloading	58	67
Improved health care services	Improved access to health insurance	86	100
	Improved services of "Abajyanama b'ubuzima" (health care assistants)	86	100
	Reduction of diseases through access to health care services	85	99
	Basic cure for children are given at village level	82	95
	Improved childcare services	81	94
	Improved maternal health	71	83
	Use of ambulance for transporting patients	59	69
	Shorted travelling to health centers	25	29
Gender equality through Evening parents assembly	Increased health infrastructure	15	17
	Updates on social issues such as education of children	81	94
	Conflicts resolution through parents' assembly	58	67
	Prevention of households' conflicts	41	48

Source: Primary data, 2018.

The table above assesses changes brought in social development by Imihigo system. Each result is evaluated at 100%. The main changes outlined by the research are: Improved socio protection programs, education, health care services and gender equality. A series of positive results on social development are improved lives in poor families by Girinka and VUP whereby respectively children access to milk and families gain income; students enrollment in primary, nine and twelve schools has increased and the life at school was improved through school feeding; women give birth at health centers and the traditional mode of transporting sick persons were replaced by ambulances; All citizens of Gakenke access to health insurance and access to health care services has been facilitated by Abajyanama b'ubuzima system (health advisories).

This finding is supported by the secondary data presented in the table 11 of this research and it is corroborated by different researchers such as: IPAR (2017); African Development Bank (2012);

Makuza (2012) while analyzed the contribution of Imihigo in improving the social economic development in ten Districts namely Gicumbi, Musanze, Gisagara, Ruhango , Nyamasheke, Karongi, Kicukiro, Gasabo, Bugesera, Kirehe; Honeyman (2017) while analysing accountability practices and policies in Rwanda's education system focusing on the impact of imihigo on education. The research compared three Districts namely Ruhango, Ngororero and Gicumbi.

5.3.Summary to the chapter

This chapter was about data analysis and interpretation of results. It assessed two types of data: secondary data and primary data. The secondary data showed statistical achievements in socioeconomic development through Imihigo system. The primary data, at other side, assessed the changes brought in socioeconomic development by Imihigo system. This is because achievements in statistics by themselves do not traduce the improved lives of the citizens.

CHAPTER 6: FINDINGS, CONCLUSION AND RECOMENDATIONS

6.0.Overview

This chapter is about findings, conclusion, recommendations and suggestions for further studies. The order of presentation of findings follows the order of research objectives namely: assessing the achievements in socioeconomic development in Gakenke District through Imihigo system; assessing the changes brought in socioeconomic development by Imihigo system; and assessing the challenges of Imihigo system in improving the socioeconomic development.

6.1.Findings

The research on the contribution of Imihigo on the socioeconomic development in Rwanda (2013- 2018): A case of Gakenke District focused on a total of 8 variables where 4 are for economic development (Agriculture, Environment protection, Infrastructure, and Entrepreneurship); and other 4 are for social development (Social protection, Education, Health, Gender).

Key findings outlined by the research are following:

6.1.1. Achievements and changes brought in economic development through Imihigo

Improved agriculture

The results of primary data reveal that Imihigo system brought changes by improving agriculture sector in two ways: Firstly by introducing modern agricultural technologies such as the technique of priority crop adapted to the soil, land consolidated expanding the area of cultivation, radical terracing, kitchen garden, and use of fertilizers. Secondary, the results of such technologies increased the production in all crops. Thirdly, the increased production improved the lives of the citizens by reducing hunger and diseases linked to malnutrition. These results of primary data are supported by the results of secondary data provided by the District Planning Office reveal the following main achievements in agriculture sector: (1) Land consolidated for priority crops: priority crops in Gakenke District are maize, beans and wheat. Respectively, over 5 years, the land consolidated increased by 1,174 ha for maize, 2,202 ha for beans and 160 ha for wheat.

(2) Average yields (T/ha) of priority crops on consolidated land: considering the production in tons per hectare, the research found that over 5 years, the production incremented by 1.80 T/ha for maize, 1.36 T/ha for beans and 0.98 T/ha for wheat. (3) Export promotion: Over 5 years, the production of coffee increased by 3,937 tones.

However, the research outlines a number of challenges in agriculture: (1) the problem of overproduction coupled with difficult to access the market. The respondents affirm that the farmers transport themselves the harvest to the local market and they can't easily access big markets of Kigali and other provinces. (2) Insufficiency of fertilizers: Gakenke District is 100% rural and it requires enough budget allocated to the provision of fertilizers. (3) Insufficient of agro-processing industries especially for maize and wheat. (4) Climate change that alters the seasons and affect farmers in several ways. (5) Poor mindset causing some resistance for some farmers and affect the speed of development required to achieve effective modern agriculture.

Infrastructure

The results of primary data reveal that Imihigo system brought change in infrastructure. Tangible facts are: (1) Building and rehabilitating roads such as Gakenke- Muzo- Janja road; Kirenge- Rushashi road; Rushashi- Gakenke road; and Giti cy'Inyoni- Ruli- Rushashi- Gakenke. These roads serve a lot in connecting different sectors inside Gakenke and connecting Gakenke to Kigali. This increased the ability to exchange goods and services between Gakenke and other geographical areas. (2) Building and rehabilitating bridge such as Mukinga bridge joining Gakenke District and Musanze District; and Rwandago bridge linking Muhondo and Rushashi. These bridges are of high importance in improving businesses in Gakenke. (3) Modern markets constructed: Over 5 years, Gakenke District constructed 3 modern markets namely: Kivuruga market, Muhondo market and Cyabingo market. These markets serve as centers for commerce of harvests. They allow citizens of Gakenke selling their goods to businessmen and women coming from Kigali and Musanze for buying local harvest to sell them in big markets. (4) Other changes brought in by Imihigo in infrastructure include improved urbanization by relocating people to settled Imidugudu, access to clean water, electricity, biogas, and ICT services.

These findings are supported by secondary data provided by the District Planning Office reveal the following main achievements in infrastructure that are described in table 9 of this research.

Despite cited achievements, a number of challenges were outlined throughout the research: (1) Roads and bridges infrastructures together with modern markets are still insufficient. A number of sectors suffer from poor roads coupled with lack of modern markets. This delay the transport of harvest to the market and the poor roads limit businessmen and women coming buying the harvest. (2) Access to electricity is still low compared to the number of households. Respondents affirmed that it take too long time to get electricity infrastructure. Another challenge to the access to electricity is limited capacity of citizens to afford the cost of electricity. (3) Poor mindset delaying living in agglomerations, exploiting ICT infrastructure, and using biogas. (4) Access to clean water is also still challenging. There are some villages without clean water.

Entrepreneurship

The results of primary data reveal that Imihigo system brought change in entrepreneurship development. Imihigo increased the creation of new off- firm jobs; Imihigo increased effectiveness of cooperatives; Imihigo improved access to finance through SACCO and BDF coupled with Business Development Advisories. In overall, Imihigo improved mindset change in terms of business.

These findings are supported by the results of primary data provided by the District Planner Office as described in table 10 of this research.

The research found a number of challenges against entrepreneurship development in Gakenke District such as: (1) Insufficient loans from BDF and SACCO: Many are applicants compared to the finance available. (2) Poor management of cooperatives: The respondents affirmed that despite cooperatives increase in number, they are challenged by mismanagement that in turn affect members. (3) Lack of guarantee limiting access to capital for starting own business: SACCO loans provided under the condition of providing guarantee; and many youth and women lack the guarantee for accessing such loans.

Social development

The results of primary data reveal that Imihigo system brought change in social protection. (1) A portion of poorest households were promoted due to income from VUP and Girinka. (2) Girinka improved access to natural fertilizers and milk.

(3) Students' dropouts have reduced considerably. (4) School feeding increased school participation and success. (5) Health services are more accessible and affordable due to Abajyanama b'ubuzima and health insurance. (5) Through evening parents' assemblies, conflicts in households are reduced.

These findings are supported by secondary data provided by table 11 of this research.

However, the research found a number of challenges such as: (1) VUP support does not cover all candidates' beneficiaries. This was confirmed by the local leaders that few are selected due to insufficient budget. The same situation is for Girinka program. (2) Poor categorization of households in Ubudehe category scheme. Some households are deprived some services due to having promoted to the categories that do not fit their financial capacities.

6.2.Conclusion

The present research was about analysis of the contribution of Imihigo on the socioeconomic development in Rwanda (2013- 2018) using a case of Gakenke District. Specifically the research assessed the achievements in socioeconomic development in Gakenke District through Imihigo system; it assessed changes brought in socioeconomic development by Imihigo system; and finally it assessed the challenges of Imihigo system in improving the socioeconomic development.

The research was articulated on 6 chapters. The chapter one was about general introduction where the research described the background to the study, the statement of the problem, the research objectives, research questions, research hypotheses, significance of the study, the scope of the study, the limitation of the study, research methodology, and the dissemination of findings. The second chapter was about origin and development of imihigo system where the research summarized the historical overview of Imihigo, a Rwanda home grown solution conceived as hybrid concept combining traditional and modern aspects for Rwandan context; and the research described similar programs in other countries known as performance contracts. The third chapter was about understanding of the socioeconomic development where the research described the socioeconomic development for ending by linking to Imihigo system described in chapter 2 for having in sum the clear relationship in between.

The fourth chapter was about the research methodology where the research described the methods and techniques used to collect and analyze collected primary and secondary data. The fifth chapter was about data analysis and interpretation of results. Using Microsoft Excel, the research analyzed collected data and presented them in form of tables; and interpreted each table accordingly. The sixth chapter was about findings, conclusion and recommendations together with suggestions for further studies.

The research found that Imihigo system as it is conceived led to considerable achievements. The fact that the whole District plans from household, village, cell, sector to District level about what direction to take and what targets to achieve, this process by itself improves the concentrations on set activities that at the end are evaluated as they were planned.

The citizens of Gakenke District are satisfied of achievements through Imihigo and they demonstrated through the questionnaire, interviews, focus group discussions their satisfaction of Imihigo system. All sector of socioeconomic development have improved namely: agriculture, infrastructure, entrepreneurship, environment protection, social protection, education, health, and gender.

The citizens of Gakenke District have contributed to the described achievements by implementing the tasks that are assigned to them by Imihigo system itself such as participating in agriculture, tree planting through public work (umuganda). Other stakeholders involved in implementation of Imihigo are: Technoserve, DUHAMIC Adri, DERNE, Sustainable Harvest Rwanda, CARITAS Rwanda, World Vision, ENABEL, Forest Management Biomass Energy, Croix Rouge. Government institutions involved in implementation of Imihigo in Gakenke are: Rwanda Water and Forestry Authority, Rwanda Housing Authority, BDF, RISA, MINAGRI, RAB, and NAEB.

However, despite big achievements described by primary data and confirmed by secondary data, the research outlined a series of challenges that have to be handled for effective improvement of socioeconomic development.

The big challenge outlined by the research is about insufficient budget that delays poorest households accessing services from VUP and Ubudehe; insufficient budget also delays infrastructure which is a pillar of development; together with delaying services from BDF for people without guarantee to request SACCO and bank loans.

6.3.Recommendations

To citizens of Gakenke District

- To change the mindset especially concerning relocating to agglomerations.
- To maintain infrastructure built to them such as roads, markets, water and electricity.

Private sector

- To invest in agro- processing industries in Gakenke District.

To the government

- To increase the budget allocated to infrastructure especially roads, for facilitating business of agricultural harvest; electricity; water; fertilizers and loans for agricultural cooperatives; BDF and social protection programs namely VUP and Girinka.
- To review the categorization of citizens of Gakenke District for facilitating people accessing services allocated to their correct categories.

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APPENDICES

Appendix 1: Informed consent form

Informed Consent Form

I have been instructed about this research on Analysis of the Contribution of Imihigo on the socioeconomic development in Rwanda (2013- 2018): A case of Gakenke District. I understand the needed information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I voluntarily agree to take part in this study.

Respondent's signature _____ Date _____

Researcher's signature _____ Date _____

Appendix 2: Archival Analysis Guide

ARCHIVAL ANALYSIS GUIDE

Questionnaire Guide N°.....

Date of Survey .../07/2018

I am Zephyrin SHAMUKIGA NTAKIRUTIMANA, a student at the University of Rwanda (UR) in MASTER'S PROGRAMME IN LOCAL GOVERNANCE STUDIES. I am conducting a study on "Analysis of the Contribution of Imihigo on the Socio-Economic Development in Rwanda (2013- 2018): A Case of Gakenke District" I would be gratefully to you allow me to access "Imihigo Annual Reports Gakenke, 2012- 2018".. All information will be kept confidential and will be used only for the purpose of this study. The final copy will be given to the District. Thanks for your support and contribution in my study.

1. Economic Development Assessment

Achievements of Imihigo in Economic Development cluster

1.1.Agriculture

Q1.a) Average yields (T/ha) of priority crops on consolidated land

Crop type	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Maize						
Beans						
Wheat						

Q1.b) What changes were brought in by Imihigo system in terms of increasing production per priority crop on consolidated land?

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*Q1.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of increased production of priority

Yes	No
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 crops?*

If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in increasing production of priority crops.

Q.1.d) List challenges you met in this domain and show how they should be solved.....

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Q2. a) Land consolidated for priority crops (ha)

Crop type	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Maize						
Beans						
Wheat						

Q2.b) What changes were brought in by Imihigo system in terms of land consolidation for priority crops?

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Q2.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of land consolidation for priority crops?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in improving land consolidation for priority crops.

Q2.d) List challenges you met in this domain and show how they should be solved.....

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Q3. a) Increase Agricultural productivity

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Hectares of banana rehabilitated						
Hectares of radical terraces constructed						
Hectare of irrigated marshlands						
Households with kitchen garden well maintained						
Number of cows inseminated						
Number of livestock vaccinated						

Q3.b) What changes were brought in by Imihigo system in terms of land productivity?

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Q3.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of food security?

<i>Yes</i>	<i>No</i>
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in agriculture productivity.....

Q.3.d) List challenges you met in this domain and show how they should be solved.....

Q4.a) Export promotion

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Hectares of Coffee planted						
Tones of Coffee cherries received						
Tones of fully washed coffee						

Q4.b) What changes were brought in by Imihigo system in terms of increasing coffee production?

Q4.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of increasing coffee production?

<i>Yes</i>	<i>No</i>
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in increasing coffee production

Q4.d) List challenges you met in this domain and show how they should be solved.....

1.2.Environment protection

Q5. a) ha of forest and agro- forest planted

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Ha of new forest and agro-forest planted						
Ha of Bambo planted at Mukungwa and Kinoni rivers						

Q5.b) What changes were brought in by Imihigo system in terms of environmental protection?

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Q5.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of environmental protection?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in environmental protection

Q5.d) List challenges you met in this domain and show how they should be solved.....

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1.3. Infrastructure

Q6. a) Transport infrastructure

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Km of feeder roads rehabilitated						
Number of bridge rehabilitated						

Q6.b) What changes were brought in by Imihigo system in terms of transport infrastructure?

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Q6.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of transport infrastructure?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in transport infrastructure

Q.6.d) List challenges you met in this domain and show how they should be solved.....

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Q7. a) Access to Energy and clean Water

Q7.b) What changes were brought in by Imihigo system in terms of access to Energy and clean

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of HHs with access to clean water						
Number of HHs connected to electricity						
Number of Domestic biogas installed						

Water?

Q7.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of access to Energy and clean Water?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in access to Energy and clean Water

Q7.d) List challenges you met in this domain and show how they should be solved......

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Q8. a) ICT

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of sectors head offices installed with internet infrastructure						
Number of women and men trained in ICT use						

Q8.b) What changes were brought in by Imihigo system in terms of improving ICT?

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Q8.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of improving ICT?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in improving ICT

Q8.d) List challenges you met in this domain and show how they should be solved.....

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Q9. a) Urbanization

Q9.b) What changes were brought in by Imihigo system in terms of improving urbanization?

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
HHs relocated from scattered areas to settled Imidugudu						
Number of Domestic biogas installed						

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Q9.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of improving urbanization?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in improving urbanization

Q9.d) List challenges you met in this domain and show how they should be solved.....

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1.4. Entrepreneurship

Q10. a) Improving productivity & youth employment

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of off- farm job created						
Number of ICPCs Cooperatives supported to acquire equipment						
Number of start-up MSMEs for youth and women coached						
Number of TVET graduates who received start- up toolkit loan						
Number of agribusiness projects for graduates which received start-up capital						
Number of MSMEs supported to access finance though BDF						
Number of semi- skilled and unskilled women and men trained under mass vocational training						
Number of existing productive craftsmen and artisans in ICPCs upgraded with skills and awarded certificates						
Number of adult using financial services						

Q10.b) What changes were brought in by Imihigo system in terms of Improving productivity & youth employment?

Q10.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of Improving productivity & youth employment?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in Improving productivity & youth employment

Q10.d) List challenges you met in this domain and show how they should be solved.....

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2. Social Development

Achievements of Imihigo in Social Development cluster

2.1.Social protection

Q11. a) VUP and Ubudehe

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of HHs employed in public works						
Number of HHS under extreme poverty covered by direct support						
Number of people under extreme poverty granted Financial service						
Number of Ubudehe Community projects implemented						
Number of HHs rehabilitated/ constructed						
Number of poor families received cows through Girinka program						
% of children aged 6- 24 months receiving FBF						
% eligible mothers receiving FBF						

Q11.b) What changes were brought in by Imihigo system in terms of VUP and Ubudehe?

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Q11.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of VUP and Ubudehe?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in VUP and Ubudehe.....

Q11.d) List challenges you met in this domain and show how they should be solved.....

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2.2.Education

Q12. a) Education infrastructure, feeding and school attendance

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of classrooms constructed						
Number of toilettes constructed						
Number of ECD model constructed and equipped						
% of 9 & 12 YBE fed at school						
% of students' attending primary schools						
% of students' attending primary schools						

Q12.b) What changes were brought in by Imihigo system in terms of education infrastructure, feeding and school attendance?

Q12.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of education infrastructure, feeding and school attendance?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in education infrastructure, feeding and school attendance

Q12.d) List challenges you met in this domain and show how they should be solved.....

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2.3.Health

Q13. a) Health infrastructure, health insurance, maternal health and family planning

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
% of women delivered with skilled birth attendance in health facilities						
Health centers constructed						
% of women using modern contraceptives (15- 45 aged)						
% of access to health insurance						

Q13.b) What changes were brought in by Imihigo system in terms of health infrastructure, health insurance, maternal health and family planning?

Q13.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of health infrastructure, health insurance, maternal health and family planning?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in health infrastructure, health insurance, maternal health and family planning

Q13.d) List challenges you met in this domain and show how they should be solved......

2.4.Gender

Q14. Umugoroba w’ababyeyi (Evening parental assembly)

Realizations	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Number of Umugoroba w’ababyeyi sessions conducted in all villages						

Q14.b) What changes were brought in by Imihigo system in terms of evening parental assembly?

Q14.c) Have you observed (witnessed) any significant impact of Imihigo system in terms of evening parental assembly?

Yes	No
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If your response is yes, use live examples to highlight the mere changes induced by Imihigo system in evening parental assembly

Q14.d) List challenges you met in this domain and show how they should be solved......

Thank you for your contribution

Appendix 3: Research Questionnaire

Questionnaire N^o.....

Date of survey .../07/2018

I am Zephyrin SHAMUKIGA NTAKIRUTIMANA, a student at the University of Rwanda (UR) in MASTER'S PROGRAMME IN LOCAL GOVERNANCE STUDIES. I am conducting a study on “**Analysis of the Contribution of Imihigo on the Socio-Economic Development in Rwanda (2013- 2018): A Case of Gakenke District**” I would be gratefully to you if you give me some minutes and help me to get useful information from your experience of Imihigo. All information will be kept confidential and will be used only for the purpose of this study. Please; tick in the appropriate answer and fill in the blank space accordingly. Thanks for your support and contribution in my study.

Q1. What changes were brought in by Imihigo system in terms of Economic development? (Explain changes brought in by Imihigo system; the impact of Imihigo if any; and potential challenges encountered and provide mechanisms as a way forward).

Economic Activity	Change brought in by Imihigo	Examples of impact of Imihigo	Potential challenges	Mechanisms
<i>Agriculture</i>				
Production of maize, beans, wheat				
Land consolidation for maize, beans, wheat				
Radical terracing, irrigation				
Kitchen garden				
Insemination and vaccination of cows				
Increased coffee production				
<i>Environmental protection</i>				
Forest and agro- forest planted				
<i>Infrastructure</i>				
Roads and bridges rehabilitated				
<i>Energy and clean Water</i>				
Access to electricity				
Biogas				
Access to clean water				
<i>ICT</i>				
Trainings in ICT				
Internet infrastructure				
<i>Urbanization</i>				
Shift from scattered areas to settled Imidugudu				

<i>Entrepreneurship</i>				
Improvement in technical trainings				
Role of BDF				
Start- up capital for agribusiness projects				
Increase and effectiveness of Cooperatives				
Off- farm jobs creation				

Q2. What changes were brought in by Imihigo system in terms of Social development?
(Explain changes brought in by Imihigo system; the impact of Imihigo if any; and potential challenges encountered together with mechanisms)

Social Activity	Change brought in by Imihigo	Examples of impact of Imihigo	Potential challenges	Mechanisms
<i>Social protection</i>				
Improved life through VUP				
Improved life through Ubudehe				
Cows distributed under Girinka				
Babies and women receiving FBF				
<i>Education</i>				
Classrooms and toilets constructed				
School feeding				
Improved School attendance				
<i>Health</i>				
Improved health infrastructure				
Improved access to health insurance				
Improved maternal health				
<i>Gender</i>				
Role of Evening parents' assembly				

Thank you for your contribution

Appendix 4: Interview guide

Interview Guide

Questionnaire N°.....

Date of survey .../07/2018

I am Zephyrin SHAMUKIGA NTAKIRUTIMANA, a student at the University of Rwanda (UR) in MASTER'S PROGRAMME IN LOCAL GOVERNANCE STUDIES. I am conducting a study on “**Analysis of the Contribution of Imihigo on the Socio-Economic Development in Rwanda (2013- 2018): A Case of Gakenke District**” I would be grateful to you if you give me some minutes and help me to get useful information from your experience of Imihigo. All information will be kept confidential and will be used only for the purpose of this study. Please; tick in the appropriate answer and fill in the blank space accordingly. Thanks for your support and contribution in my study.

Topic 1: Economic Development

Q1. What is the role of Citizens, Stakeholders and Local Government Institutions in implementation of the following activities improving economic development?

Economic Activity	Role of citizens	Role of Stakeholders	Role of Local Government institutions
<i>Agriculture</i>			
Production of maize, beans, wheat			
Land consolidation for maize, beans, wheat			
Radical terracing, irrigation			
Kitchen garden			
Insemination and vaccination of cows			
Increased coffee production			
<i>Environmental protection</i>			
Forest and agro- forest planted			
<i>Infrastructure</i>			
Roads and bridges rehabilitated			
<i>Energy and clean Water</i>			
Access to electricity			
Biogas			
Access to clean water			
<i>ICT</i>			
Trainings in ICT			
Internet infrastructure			

<i>Urbanization</i>			
Shift from scattered areas to settled Imidugudu			
<i>Entrepreneurship</i>			
Improvement in technical trainings			
Start- up capital for agribusiness projects			
Increase and effectiveness of Cooperatives			
Off- farm jobs creation			

Q2. What are stakeholders intervening in implementation of Imihigo?

Q3. What are the challenges encountered in the coordination of those different actors (citizens, stakeholders and local administrative institutions) in implementation of Imihigo?

Topic 1: Social Development

Q1. What is the role of Citizens, Stakeholders and Local Government Institutions in implementation of the following activities improving social development?

Social Activity	Role of citizens	Role of Stakeholders	Role of Local Government institutions
<i>Social protection</i>			
Improved life through VUP			
Improved life through Ubudehe			
Cows distributed under Girinka			
Babies and women receiving FBF			
<i>Education</i>			
Classrooms and toilets constructed			
School feeding			
Improved School attendance			
<i>Health</i>			
Improved health infrastructure			
Improved access to health insurance			
Improved maternal health			
<i>Gender</i>			
Role of Evening parents' assembly			

Q2. What are stakeholders intervening in implementation of Imihigo?

Q3. What are the challenges encountered in the coordination of those different actors (citizens, stakeholders and local administrative institutions) in implementation of Imihigo?

Appendix 5: Map of Gakenke District

