E-GOVERNANCE IN RWANDA: APPLICATION OF ICT IN THE DELIVERY OF PUBLIC SERVICES

MAJOR GENERAL CAESAR CANISIUS KAYIZALI

A project submitted in partial fulfillment of the requirements for the award of the degree of masters of arts in diplomacy and international studies to the university of Nairobi

DECLARATION

This dissertation is my original work and has not been presented for a masters degree in any other University.

Maj Gen CC Kayizali, Signature _____ Date 12-11-05

This dissertation has been submitted for examination with my approval as University supervisor.

L. Chweya, PhD, Signature _____ Date 12th NOV. 05

ACKNOWLEDGEMENTS

My greatest appreciation goes to all those who have contributed to the successful completion of this research project, my supervisor Dr. Chweya whose guidance, advice was a major input to the whole process.

I am also indebted to all those that gave advise, opinion through our discussions particularly those that answered research questionnaire. My colleagues at the National Defense College shared with me the joys and challenges of scholarship throughout the program.

Without the leadership of Rwanda, I would not have attended this course. I am grateful for they selected me to attend NDC and more so, their ICT vision that inspired me to do a research on e-governance in Rwanda.

Last and not least my family contribution towards this project is immense. Your moral support will always be remembered.

ABBREVIATIONS AND ACRONYMS

AISI	Africa Information Society Initiative
APC	Association for Progressive Communication
CIC	Community Internet Centres
ECA	Economic Commission for African
FDI	Foreign Direct Investment
GEPSS	Government Electronic Procurement and Settlement System
GIS	Geographic Information System
GOR	Government of Rwanda
G2C	Government to Citizens
G2G	Government to Government
G2B	Government to Business
HIPC	Highly Indebted Poor Country
ICANN	Internet Assigned Names and Numbers
ICT	Information Communication Technology
ID	National Identity
IDB	International Development Bank
ISD	Integrated Service Delivery
ISP	Internet Service Providers
ITSD	Information Technology Services Division or Directorate
IXP	Internet Exchange Point
LAN	Local Area Networks
LDC	Less Developed Country
LGCB	Local Government Computer Bureau
MIPIS	Military Personnel Information System
MRND	Mouvement Révolutionaire National pour le Dévelopment
NGDC	National Geographic Data Committee
NICI	National Information and Communications Infrastructure
NITC-WGs	National Information Communication Technology Working Groups
NICT	National Information Communication Technology
NPM	New Public Management
PECC	Plan Execution and Coordination Committee
PIK	Public Information Kiosks
PSO	Public Service Organizations
REGGI	Rwandan Electronic Government and Governance Initiative
RINEX	Rwanda Internet Exchange Point
RITA	Rwanda Information Technology Authority
RRA	Rwanda Revenue Authority
RORIS	Roads Records Information System
SGI	Smart Government Initiative
VfR	Vision for Rwanda
VOIP	Voice Over IP
WAN	Wide Area Networks

TABLE OF CONTENTS

ABSTRACT

This study is an assessment of the implementation of the e-governance programme in Rwanda. The study argues that years of bad governance culminated in the 1994 genocide, a traumatic event in the country's history. After the genocide the government that came to power, in a bid to re-unify the country and reconcile it, adopted a different approach to the management of public affairs, one different from that favored by the pre-1994 regimes. Thus was born the concept of e-governance.

The findings of the study indicate that e-governance is part of the wider development efforts of the government of Rwanda, efforts that aim at making Rwanda a medium income country in twenty years. The study found out that in the fifth year of its implementation the e-governance program has taken of to a good start and several tangible benefits are already being felt both by the government and the public.

However the study also points out that the e–governance program faces various challenges many of which will need to be surmounted before it can successfully deliver the expected results. These challenges include lack of resource, poor human resource capability, and institutional resistance among others. Finally the study makes recommendations that can probably benefit the program.

CHAPTER ONE:

INTRODUCTION TO THE STUDY OF E-GOVERNANCE

The state of the art can be used to reinvent the art of the state
Chandrababu Naidu, Chief Minister, Andhra Pradesh

STATEMENT OF THE PROBLEM

Information and communication are integral to human society. In many cultures today, information retrieval and presentation – the recording of wisdom and history – is still done with the use of speech, drama, painting, song or dance. The advent of writing changed this enormously, and the invention of the printing press allowed communication on a massive scale, through newspapers and magazines. More recent technological innovations increased further the reach and speed of communication, culminating, for now, with digital technology. These new information communication technologies can be grouped into three categories: first, information technology that uses computers to process data, which has become predominant in modern societies; second, telecommunications technologies that include telephones (with fax) and the broadcasting of radio and television, often through satellites; and, thirdly, networking technologies, the best known being the Internet, but which have extended to mobile phone technology, Voice Over IP telephony (VOIP), satellite communications, and other forms of communication that are still in their infancy.

The new technologies have become central to communication in contemporary societies. They are noticeable in telephone conversations, email communication, banking, library use, radio and TV broadcasts, office and fieldwork, appointments and, in travel.

Prior to the advent of the latest ICT technology the delivery of public services in many countries was both ineffective and inefficient. For instance, problems that

bedeviled public service institutions included absence of citizens in the policy and decision-making process, undue delays in the delivery of services and a chronic absence of adequate and timely information that is necessary in decision-making. Initially countries attempted to overcome these problems through decentralization of development planning and implementation but with little achievement.[1]

Furthermore, authoritarian rule entailed: restriction of citizen participation; control and restriction of access to information; excessive secrecy; suppression of the media; curtailment of freedom of speech, association, assembly, limitation of political space through the institutionalization of one party rule and government interference in interest groups such as trade unions.

The introduction of ICTs is therefore meant to solve some of these problems and ensure efficient delivery of public services to citizens. In particular the emergence of the New World Order, with its emphasis on transparency and accountability, coupled with rapid improvement in ICT, has facilitated the rise of the phenomenon of e-governance that has become a catalyst for organizational change, namely net-working and collaboration. E-governance is instrumental in facilitating re-engineering processes and integrated services delivery to citizens. Recent events suggest that changes in ICT have a profound impact on the organization and operations state institutions. The central issue now is the precise way in which public administrative structures and practices undergo change in service delivery and client participation in decision making as advances in ICT occur.

---

[1] Cf. W.O Oyugi, "Decentralization for Good Governance and Development: The Unending Debate" in Regional Development Dialogue (RDD), Vol. 21, No.1, Spring 2000, pp. iii-xix.

Snellan has pointed out two of the most important developments in modern public administration. First is the introduction of ICT that has led to the emergence of a network of relationships.[2] Dizard has also observed that,

... the new capabilities of communication and information ... are not simply micro-electronic add-ons to the economic structures. They are a controlling resources, the social brains and nervous system holding society together and keeping it in some sort of equilibrium during a difficult transition. To a considerable degree, the deciding factor will be the ways in which we understand the critical role of advanced information resources in a post industrial democratic society.[3]

Thus e-governance is the means by which public administration develops new relationships with the communities through application of information communication technologies (ICTs). E-governance uses these enabling technologies to effect the transition of government to a model that is appropriate to the present age of information revolution. Today due to the wave of democratization that has swept across Africa in the post-Cold War era citizens have become more conscious of their right to get required services in good time. Democratisation has introduced competitive government and compelled incumbent regimes to broaden the scope of popular participation in order to gain re-election. Consequently, as both the state and central governments recognize the need to deliver fast and efficient services to citizens in return for popular legitimacy, e-governance has emerged as an effective instrument of public administration. It has been introduced in the internal communication within government as well as in the delivery of

[2] Snellan Ignace (2002), "Electronic Governance: Implications for citizens, Politicians and Public Servants," International Review of Administrative Sciences, 68 (2), pp. 183-189.
[3] Wilson Dizard, *The Coming Information Age: An overview of Technology, Economics and Politics*

public services, including legal regulation. The state has become a promoter of ICT in different sectors of society.

Transformation of government activities is the most visible consequences of ICT intervention. For example, the wave of digital government in Canada, Portugal and Australia is represented by an integrated service delivery (ISD) and an opportunity to build the virtual state which has been defined as "a government in which information and communication flow increasingly over the web rather than through bureaucratic and other formal channels."[4] In Singapore, ICT has penetrated all corners of government operations and e-governance has eliminated hierarchical barriers, increased speed, reduced secrecy, expanded information, facilitated direct feed-back and enhanced responsiveness.[5]

In many places where it has been introduced, e-governance does not stand alone, but has come in the context of management reform, and is also utilized to facilitate reforms. The transformation has resulted in the rise of a new school in administration, namely the New Public Management (NPM). Morocco, China and Argentina are among countries that have endeavored most to adapt to the post-Cold War environment that each country is facing. A general frame work for NPM-type of reform in Morocco, which has long been plagued with dysfunctions including secrecy, concentration of decision-making and duplication of structures entailed the implementation in 1995 of administrative reforms that included the use of ICT in governance.

In Rwanda, much of the domestic initiative for the ICT service industry has come from the government and has mostly targeted the institutionalization of e-government infrastructure and service delivery. Most ministries now have local area networks, with

---

[4] Fountain Ians (2001), *Building the Virtual States: Informational Technology Change*, Washington DC: Brookings Institution, p. 98.
[5] Ibid,

some spanning entire buildings and others connected to Wide Area Networks. Efforts are also underway to synchronize existing disparate networks in government departments into a secure common core network through the optic fibre technology deployed by Terracom Communications. The purpose of the fibre optic infrastructure is to link provincial and district headquarters to central databases and services in order to consolidate government services, reduce duplication of functions, increase efficiency, and cut down on costs.

The Rwanda Internet Exchange Point (IXP) has now been established and allows the ISPs in Rwanda to exchange domestic Internet traffic without sending data across multiple international hops. Formal application with Internet Assigned Names and Numbers (ICANN) has been initiated with the aim of re-delegating the administration. As part of its wide information technology reforms, the government plans to replace the Rwanda Information Technology Authority (RITA), established in 2001, with the National Information Communication Technology (NICT) as the overseer in the execution of the Information Communication Technology (ICT) plan from 2006 to 2010.[6] This study therefore attempts to examine the implications of the developments towards e-governance in Rwanda. The study aims to assess the implementation of e-governance programmes in the Rwanda public service and the impact of the new system in overcoming the traditional problems that have characterized the delivery of public services in the country since independence. Specifically, the study will examine the extent to which the government of Rwanda has introduced ICT in the delivery of public

---

[6] http://www.apc.org/english/rights/africa/index.shtml?apc=21865s21845e_1

services and the motivations behind the ICT reforms. Secondly, the study will assess the impact of ICT reforms on the delivery of public services notably on the speed of service delivery in government and interdepartmental relations within the government.

THEORETICAL AND CONCEPTUAL FRAMEWORK

The *strategic objective* of e-governance is to support and simplify governance for all parties; government, citizens and businesses. The use of ICTs can connect all three parties and support processes and activities. In other words, in e-governance electronic means support and stimulate good governance. Therefore the objectives of e-governance are similar to the objectives of good governance. Good governance can be seen as an exercise of economic, political, and administrative authority to better manage affairs of a country at all levels. More *practical objectives* of e-governance can be given when the objectives for e-democracy and e-government are described separately. The two main objectives of e-democracy are: to provide citizen access to information and knowledge about the political process, about services and about choices available; and, to enable the transition from passive information access to active citizen participation. Regarding e-government a distinction can be made between the objectives for internally focused processes (operations) and objectives for externally focused services. The *external objective* of e-government is to fulfil the public's needs and expectations satisfactory on the front-office side, by simplifying the interaction with various online services.

The use of ICT in government operations facilitates speedy, transparent, accountable, efficient and effective interaction with the public, citizens, business and other agencies. In the back-office, the *internal objective* of e-government in government operations is to facilitate a speedy, transparent, accountable, efficient and effective

process for performing government administration activities. Significant cost savings (per transaction) in government operations can be the result.

This study is based on two models: Kuhn's model of paradigms[7] and Finger and Pecoud's model of e-governance. Thomas Kuhn argues that all sciences engage in problem solving even though they may work within one paradigm (which can be likened to a way of viewing social, economic or political issues and hence a determinant of the strategy formulated to resolve the issue). But whenever a paradigm develops significant anomalies, and is no longer able to solve the pressing problems of the day, it is overthrown and a new paradigm is identified and takes over, in a process that Kuhn labels as a 'paradigm shift.' The period in which this process takes place is not sudden but takes time; indeed the process contains a period of transition during which the old paradigm holds on as the new paradigm gains acceptance.

The concept of e-governance therefore represents a paradigm shift in the 'Kuhnian' sense of the phrase. Traditional management of public affairs in Rwanda worked within the confines of the 'Weberian public administration' with its tendency to emphasize hierarchy and processes (bureaucracy) at the expense of results. Marx Weber was concerned with modern trends of rationalization, especially the operation of modern large-scale enterprises in the political, administrative, and economic realm. Weber argued that bureaucratic coordination of activities is the distinctive mark of the modern era. Bureaucracies are organized according to rational principles. Offices are ranked in a hierarchical order and their operations are characterized by impersonal rules. Incumbents are governed by methodical allocation of areas of jurisdiction and delimited spheres of

[7] Kuhn, T., *The Structure of Scientific Revolutions*, Chicago: Chicago University Press, 1970.

duty. Appointments are made according to specialized qualifications rather than ascriptive criteria.[8]

The bureaucratic coordination of the actions of large numbers of people has become the dominant structural feature of modern forms of organization. Bureaucracy, as an organizational device, has enabled large scale planning, both for the modern state and the modern economy, and allowed leaders to mobilize and centralize resources of political power, which in feudal times, for example, had been dispersed in a variety of centers. Bureaucratic organization is to Weber the privileged instrumentality that has shaped the modern polity, the modern economy, modern technology. Bureaucratic types of organization are technically superior to all other forms of administration, much as machine production is superior to handicraft methods.[9]

Yet the classical bureaucratic theory of Marx Weber insulated public services from popular participation due to strict adherence to informal rules and a near complete insensibility to public demands. Institutionalized hierarchy caused tremendous delays and was undemocratic. Post-colonial African public services were based on Weberian principles and were non-participatory due to establishment of authoritarian rule.

Weber noted the dysfunctions of bureaucracy: its major advantage, the calculability of results, also makes it unwieldy and even stultifying in dealing with individual cases. For instance modern rationalized and bureaucratized systems of law have become incapable of dealing with individual particularities, to which earlier types of justice were well suited. Weber argued that the bureaucratization of the modern world has led to its depersonalization; that is the more fully realized bureaucracy "depersonalizes" itself, the

---

[8] Available @ http://www2.pfeiffer.edu/~lridener/DSS/Weber/WEBERW8.HTML
[9] Ibid

more completely it succeeds in achieving the exclusion of love, hatred, and every purely personal, especially irrational and incalculable, feeling from the execution of official task, and the more appropriate it becomes for capitalism.[10]

However, the traditional (Weberian) approach to public affairs therefore failed to resolve significant problems of the day in Rwanda, such as efficient delivery of services to citizens, separation between politics and administration and citizens' participation in the policy making process. Indeed executive powers were concentrated in the presidency, extending to a few people who constituted the political regime, and government operations were highly secretive. E-governance however attempts to move beyond the confines of the traditional approach by focusing on service delivery and citizen participation in the policy making process.

Kuhn's conceptual framework is important because it will help explain the rationale behind the shift towards e-governance in Rwanda. The study will therefore outline the major weaknesses/failures in the traditional approach towards the management of public affairs in Rwanda that necessitated a shift towards e-governance. Secondly the framework will be important in analyzing how e-governance intended to overcome the failures of the old paradigm. Lastly an analysis of the effectiveness of e-governance in Rwanda will be predicated on Kuhn's assertion that such a new paradigm does not necessarily resolve all the problems of the day, and that over a period of time anomalies also begin to appear in the new paradigm that necessitate the emergence of another paradigm. Consequently, the study will also attempt to demonstrate some of the shortcomings of the e-governance approach.

---

[10] Ibid.

On the other hand, Finger and Pecoud's model of e-governance places the role of the New Information and Communications Technologies (NICT) within the broader context of recent state transformation in an increasingly globalized world. State transformation has essentially been synonymous with the modernization of the state's operational activities and led to a separation of the state's three main functions namely, operations, policy-making and regulation. It has also led to a redefinition of these three functions at the local, regional and national level.

The model views e-governance in terms of three interrelated concepts: e-government, e-regulation, and e-democracy.[11] E-government refers to the state's use of NICTs to provide better services, often in partnership with the private sector and civil society organizations. E-regulation is the state's use of NICTs to better regulate and by so doing ensure public services (price, quality, accessibility). E-democracy refers to the extent to which the state uses NICTs to improve its policy making function, including increased involvement, by whatever means (decentralization, opinion polls), of the various actors in decision making. E-governance therefore refers to three interrelated aspects: tools to enable customer satisfaction through processes and interactions.

---

[11] Mathias Finger and Gaelle Pecoud, "From e-government to e-governance? Towards a model of e-governance", Electronic Journal of E-Government, Available at http://www.ejeg.com/volume1-issue1-art1.htm

Table 1: Three main Conceptualizations of e-governance

	E-governance as customer satisfaction	E-governance as processes and interactions	E-governance as tools
Policy Levels	National, Regional, local	National, Regional, local	National, Regional, local
Actors	Consumers, administration	Public and private	State
Policy Functions	Operations, service delivery	Operations and policy making	Mainly service delivery
Use of NICTs	Substitution and Communication	Interaction	Technology driven

This model therefore assumes that e-governance, with its emphasis on participation and involvement of citizens in decision making, enhances good governance, because it is only through participation and interaction that the incorporation of the perceptions, attitudes and values of stakeholders are essentially guaranteed.[12] Good governance involves a degree of power sharing between the centre and the sub-national units.

An e-governance model

The three main target groups that can be distinguished in e-governance concepts are government, citizens and businesses. Abbreviations such as B2B (Business to Business) and B2C (Business to Consumer) are used, like in e-commerce concepts, to shortly describe which of the main groups are interacting.

The most common interactions in e-governance, G2C, G2B and G2G, are presented schematically in Figure one.

[12] UNDP, *Third Kenya Human Development Report: Participatory Governance for Human Development*, 2003, p. 6.

Government

G2G

Central Gov,

G2C G2G G2B **Business**

NGOs

Citizen Local Gov.

G2G

Figure 1: G2C, G2B, G2G interactions

Gartner, an international consultancy firm, has formulated a four-phase e-governance model. This can serve as a reference for governments to position where a project fits in the overall evolution of an e-governance strategy.[13] The model does not imply that all institutions have to go through all phases and all at the same time. On the contrary, in Western countries, government institutions are in phase one, two or three. The differences can be huge: the tax department can be in phase three, while the department of public works is starting phase one. It all depends on where the benefits are highest.

The four phases

In the first phase, e-governance means being present on the web, providing the public (G2C & G2B) with relevant information. The format of the early government websites is similar to that of a brochure or leaflet. The value to the public is that government information is publicly accessible; processes are described and become more

[13] Michiel Backus, *E-governance in Developing Countries*, IICD Research Brief – No 1, March 2001, p. 2-5

transparent, which improves democracy and service. Internally (G2G) the government can also disseminate static information with electronic means, such as the Internet.

In the second phase, the interaction between government and the public (G2C & G2B) is stimulated with different applications. People can ask questions via e-mail, use search engines, and download forms and documents. These procedures save time. In fact, the complete intake of (simple) applications can be done online 24 hours per day. Normally, the process would have been possible at a counter during opening hours. Internally, (G2G) government organisations use LANs, intranets and e-mail to communicate and exchange data.

In phase three, the complexity of the technology is increasing, but customer (G2C & G2B) value is also higher. Complete transactions can be done without going to an office. Examples of online services are filing income tax, filing property tax, extending/renewal of licenses, visa and passports and online voting. Phase three is made complex because of security and personalization issues such as digital (electronic) signatures, which are necessary to enable legal transfer of services. On the business side, the government initiates the e-procurement of applications. Internal (G2G) processes also have to be redesigned to provide good service. Government needs new laws and legislation to enable paperless transactions.

In the fourth phase all information systems are integrated and the public can get G2C & G2B services at one (virtual) counter. The complex aspect in reaching this goal is mainly on the internal side, that is the necessity to drastically change administrative culture, processes and responsibilities within the government institution (G2G) and re-orient them towards acceptance of ICT use. Government employees in different

departments have to work together in a smooth and seamless way. In this phase, cost savings, efficiency and customer satisfaction also reach high levels.

HYPOTHESES OF THE STUDY

a. E-Governance has led to increased participation by citizens of Rwanda in the decision making processes, thus enabling good governance
b. E-Governance expedites delivery of public services and cuts down and cuts down costs (time, money)

LITERATURE REVIEW

Theme I: The link between ICT and democracy

The link between ICT, participation and democracy has been established in some literature. Katherine Reilly argues that the information revolution has created a host of new concerns for governments, especially in Central American countries like Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua. Governments, often with international support from institutions like the International Development Bank (IDB), are implementing projects, and have begun to establish policies for the use of information and communication technologies (ICTs).[14] Overall, her study found that the focus of government ICT use in the region is on modernization of the state, not on improving governance or building democracy. In particular, there is a great deal of pressure from international influences to improve government information systems so as to improve accountability to donors, reduce corruption and qualify for highly indebted poor country (HIPC) status. Reilly asserts that while ICTs will not create democracy, depending on

---

[14]Katherine Reilly, "Government, ICTs and Civil Society in Central America: Is National Government ICT Use Contributing to More Democratic States?" available at @http://katherine.reilly.net/e-governance

how they are used by governments, they can have a role to play in facilitating democratic processes. Thus there is a need for civil society to begin to address the use of Internet by the government in order to make the state more responsive to social needs.

Hasan notes that most political parties in Bangladesh have their own websites. They contain information about their history, philosophy, policy, leadership, political messages, membership in parliament, interviews, and press releases concerning issues and campaigns. These websites provide an option to send feedback and played an important role in the last general election held in October 2001.[15]

Gibson, Ward and Nixon argue that the development of ICT has generally been accompanied by recognition of its capabilities for the practice of democracy. In recent times, a debate has centred upon Internet-based technologies and the possibilities for 'electronic democracy'. While this debate first surfaced in the 1960s, in discussions of technological optimism, it has boomed since the late 1990s. The authors note that the debate is not purely academic; there have been many projects aimed at utilising the capabilities of ICTs that have, to a greater or lesser extent, been informed by the objective of 'strengthening' democracy. Examples of this can be found in 'experiments' with 'digital democracy', including the development of 'community networks'; 'parliaments online'; electronic voting and different forms of 'open government' initiatives. Indeed ICT has been credited as playing an essential role in restructuring and redefining established political systems. New ICTs, given their unique properties - more equal access to political processes, interactivity and decentralisation - are judged able to

[15] Sadik Hasan, "Introducing E-Government in Bangladesh: Problems and Prospects" in *International Social Science Review*, Vol. 78, No. 3-4, 2003, pp. 111-127.

counteract trends towards political 'sclerosis' and 'reinvigorate', or even 'reinvent' democracy as we know it. [16]

Theme II: The link between ICT and development

Robert Wade argues that ICTs have been oversold as the key both to higher efficiency of corporate and public organizations and to stronger responsiveness of government to citizen - customers.[17] Admittedly, ICT tools can help people learn how to absorb knowledge generated elsewhere and combine it with local needs and local knowledge, and they can help raise real economic returns to investments; but they are being advocated in the development community as though they can overcome the more familiar development problems. Wade likens the advocacy to an assertion that cheap books can cure illiteracy; once the illiteracy problem is solved, cheap books are a great boon, but giving illiterate people cheap books does not solve illiteracy.

Wade suggests that efforts to bridge the digital divide may have the effect of locking developing countries into a new form of dependency on the West.[18] The technologies and "regimes" (international standards governing ICTs) are designed by developed country entities for developed country conditions. As the developing countries participate in ICTs, they become more vulnerable to the increasing complexity of the hardware and software and to the quasi-monopolistic power of providers of key ICT services. Furthermore, the Western aid industry, by linking aid to good governance and good governance to programs to digitalize the public sector ("e-govenance"), may be reinforcing the overall dependency of developing countries. Less developed country

---

[16] R. Gibson, P. Nixon & S. Ward, *Political Parties and the Internet: Net Gain?*, New York: Routledge, 2003.
[17] Robert Hunter Wade , "Bridging the digital divide: new route to development or new form of dependency?," *Global Governance*, Vol. 8, No. 4, 2002, pp. 443-464.
[18] Ibid.

(LDC) governments should not take the technologies and international regimes as given. They should press for standards and pricing regimes that make it easier for entities in their countries to access the global information economy. They need more representation in the standard-setting bodies and more support in the ICT domain.

Kalathil argues that historically, authoritarian states in developing countries provided economic benefits and stability in return for the right to rule. Authoritarian and semi-authoritarian regimes such as China, Malaysia, and Singapore have already thrown government weight behind domestic information technology industries that stimulate the local economy. Malaysia has long promoted its Multimedia Super Corridor as a haven for technology companies--complete with tax perks and hands-off censorship policies for investors. Vietnam, while struggling with economic reforms, nonetheless aims to develop a local "knowledge economy" based on a tech-savvy population of programmers. Even authoritarian regimes such as Myanmar (Burma) that are relatively wary of all forms of ICT often emphasize wiring those key industries that generate hard currency, such as tourism. Authoritarian states also use ICTs like the Internet to promote larger development goals. The state -supported All China Women's Federation (ACWF), for instance, helps rural women get accurate, up-to-date health information online through local organizations that have Internet access. The ACWF uses its Web site to offer women anonymous counseling on issues such as rape and spousal abuse. In Cuba, where mass web access remains restricted, authorities have been pursuing online health initiatives. The Ministry of Public Health's Infomed, one of Cuba's oldest networks, connects medical centers nationwide and uses e-mail lists to disseminate health alerts.

Egypt, a semi-authoritarian country that has not attempted to censor the Internet, is developing technology-access community centers to promote rural education. [19]

Kumar and Chadha assert that ICT can empower rural people by providing them with both access to information and the tools for analyzing it. In agriculture, for example, systems technologies can help farmers in the area of crop management by providing information concerning planting date selection, water use and management, pest and disease control, and harvest management. The Land Information System in Bangladeshi, for example, provides information concerning markets, food pricing, imports and exports, tariffs and quotas, underproduction and overproduction as well as information on soil, hydrology, and rainfall that support planning activities at various administrative levels.[20]Availability of such information in a timely manner would assist farmers in making decisions that would ensure increases in productivity.

Further, Mansell and Uta argue that the use of ICT by governments in the education, health care, and environment sectors can also prove beneficial. In education, it can increase literacy rates significantly. Web-based education and e-learning have emerged as handy tools for distance learning. Both video and computer conferencing have made it possible for students in remote rural regions to have access to teachers anywhere in the world. The Digital Revolution also has had a major impact on the delivery of health care. It allows for an efficient exchange of information, such as patient's records and medical diagnosis, between health professionals, which improves

---

[19] Shanthi Kalathil, "Dot Com for Dictators" in *Foreign Policy*, March-April 2003, pp. 43-55.

[20] Nagesh Kumar and Alka Chadha, "Exploiting the Potential of Information and Communication Technologies for Development in South Asia," *South Asian Survey,* Vol. 9, No.2, July 2002, pp. 201-213.

the quality of health care. Governments can use information technology applications for effective management and monitoring of environmental resources. This would enable authorities to take appropriate actions in case of emergencies. It would also prove helpful in such areas as air and water quality monitoring, pollution warning systems, public environmental information services, and environmental emergency management systems for floods, forest fires, and other natural disasters.[21]

Theme III: ICT as reduction of government (creation of neo-liberal state)

E-governance is believed to be a result of a string of reforms and changes in the machinery of governments across the Western world that had been progressing for almost twenty years.[22] Privatization, accountability, decentralization and the rolling back of the state were some of the efforts geared towards achieving this objective in the public sector. Considerable political backing has led these efforts to radically reshape countries like Britain, much of Scandinavia, Australia, New Zealand and the United States. In a weaker form, the key concepts of this so-called 'Anglo-Saxon' model of government have even started to transfer to the Third World. In the late 1990s, e-governance connected with this agenda and has now become a buzzword that is linked to all kinds of reforms in the public sector.

Byrne avers that interest in e-government in general, and in electronic service delivery in particular, is best viewed as a response to the growing fragmentation and complexity of government. It has become fashionable to conceive of government as a set

---

[21] R. Mansell & Uta When, *Knowledge Societies: Information Technology for Sustainable Development*, Oxford: Oxford University Press, 1998, p.82.
[22] Peter M. Eckersley, Lisa Harris, & Paul Jackson, *E-Business Fundamentals: Managing Organisations in the Electronic Age*, New York: Routledge, 2003.

of "information silos" that establish barriers that inhibit access to information.[23] E-government, at least in the eyes of public service users, promises to dissolve these barriers.This can produce several benefits, including reduced corruption, increased transparency, greater convenience, revenue growth, and empowering people to participate in political processes that affect their lives directly. In short, use of ICT in government facilitates an efficient, speedy, and transparent process for disseminating information to the public and other agencies, thus enhancing government administration performance.

Theme IV: ICT as a means to effective service delivery for increased popular legitimacy of government

The main targets of e-governance are citizens and therefore the legitimacy of the service depends in large part on its popular support, and the public good it conveys or provides. As a result, the core argument for implementation of e-governance is to improve operational performance. An e-Government should transform the state into a more effective and more efficient

Essential services can be fundamentally transformed and be delivered effectively in contexts where the state has legitimacy. Despite the fact that policy differences may distort what has been achieved, but e-governance offers the chance to improve the quality of what the state does and provides for its citizens. If government can be joined up and save lives (for example, with the co-ordination of ambulance, police and fire services) or improve living situations (for example, welfare provision combined with health care needs), then in some ways e-governance provides the glue to bind departments together.

---

[23] L. Byrne, *Information Age Government: Delivering the Blair Revolution*, London: Fabian Society, 1997, quoted in Christine Bellamy, "From Automation to Knowledge Management: Modernizing British Government with ICTs," *International Review of Administrative Sciences*, Vol. 68, No. 2, June 2002, p. 215.

Moon points out that the use of ICT in government activities has become a common phenomenon in recent years. In the late 1990s, ICT introduced a unique concept--electronic government (e-government)--in the field of public administration. Various technologies have been applied to support the unique characteristics of e-government, including electronic data interchange, interactive voice response, voice mail, email, web service delivery, virtual reality, and key public infrastructure.[24]The web and other technologies have shown potential as effective and efficient managerial tools that collect, store, organize, and manage voluminous information. The most current information can be uploaded and downloaded on the Internet on a real-time basis. Governments can also transfer funds electronically to governmental agencies or provide information to public employees through an intranet or Internet system.

Additionally, Moon argues that governments can perform many routine functions more easily and quickly (i.e., responding to employees' requests for benefits statements). Web technologies also facilitate government links with citizens (for both services and political activities), other governmental agencies, and businesses. Government websites can serve as both a communication and public relations tool for the general public. Information can be shared with and transferred to external stakeholders (businesses, non-profit organizations, interest groups, or the public). In addition, some web technologies, such as interactive bulletin boards, enable governments to encourage public participation in policy-making processes by posting public notices and exchanging ideas with the public. As a consequence, some governments have promoted virtual democracy by

[24] M. Jae Moon, "The Evolution of E-government among Municipalities: Rhetoric or Reality?" *Public Administration Review*, Vol. 62, No.4, July 2002, p.424.

encouraging web-based political participation through online voting and on-line public forums.[25]

Melitski adds that developments in e-government have encouraged governments around the world to establish an on-line presence by publishing statistical information on the Internet. In so doing, they hope to increase efficiency, effectiveness, and organizational performance.[26] Countries, irrespective of their developing characteristics, are constantly striving to improve the efficiency and effectiveness of e-government delivery services. Governments hope that e-government will counter corruption, red tape, bureaucratic inefficiency and ineffectiveness, nepotism, cronyism, lack of accountability, and transparency.

Theme V: ICT as a means to citizen-state interaction

Dinesh Sharma has pointed out that in India the use of computers in governance is going beyond mere computerization of government works and electronic availability of government forms and files.[27] E-governance is supposed to improve the interaction between the government and citizens, while bringing in openness and transparency. A major target of e-governance could be reduction or elimination of corrupt practices. A number of e-governance projects are operational in different parts of India, notably the 'Bhoomi' project in Karnataka, under which all land records have been computerised and have been made accessible to the public through touch screen kiosks. Anyone can get a certified hard copy of a land record anywhere in Karnataka by paying Rs 15. Earlier,

---

[25] Ibid., 425

[26] Jim Melitski, "The World of E-Government and E-Governance," http://www.aspanet.org/e-government/melitski.html,April 20, 2003.

[27] Dinesh C. Sharma, "Technologies for the People: A Future in the Making," *Futures,* Vol. 36, No. 6-7, 2004, pp. 733-45.

landowners had to spend a lot of money and time to get such copies from village officers or district or sub-district administration.

The Bhoomi project can be termed successful on two grounds. First, all legacy records have been killed and all land data is now available only in electronic media. Second, the usage of Bhoomi kiosks is very high. Within a short span of 18 months, user fee of Rs 120 million has been collected, as against Rs 180 million spent on the entire project. That means the project is scalable (it has been implemented all over the state), sustainable (existing legacy records have been killed) and financially viable (revenues through user charges are flowing steadily). Another very important measure of the success would be its impact on land-related litigation in courts. These numbers are bound to decline, but it will take a few years before the situation changes on the ground.

Land records are a vital document in an agrarian economy. If a project like 'Bhoomi' can be replicated in all the states, it will have a very significant impact on reducing land-related litigation and conflicts in the future, as land ownership is often a cause of disputes and litigation in rural areas. There are plans to develop similar projects to computerise all property records in urban areas as well.

Heeks notes that in the post-Cold War era, the state, in almost every instance, has taken the necessary initiatives to restructure political and administrative institutions by adopting ICT in order to enhance electronic interaction and service delivery. Today, public servants are encouraged and trained to be familiar with the tools and languages of ICT. ICT offers three information processes to promote governance: automation: replacing current human-executed processes, which involve accepting, storing, processing, outputting or transmitting information (i.e., the automation of existing clerical

functions); informatization: supporting current human-executed information processes, namely supporting current processes of decision-making, communication, and decision implementation; transformation: creating new ICT -executed information processes or supporting new human-executed information processes. For example, creating new methods of public service delivery.[28]

Yet little has been written on the implementation of this mode of management of public affairs especially in Africa. By using Rwanda as a case study this study hopes to assess the effectiveness and challenges facing the implementation of e-governance across the continent. Hopefully the study will generate viable *recommendations* for other policy makers attempting to implement e-governance.

This study focuses on post-1994 Rwanda and the attempts that have been made to implement e-governance as one of the facets of the post-genocide reconstruction, reconciliation and nation building. The study attempts to contribute to the on-going discourse on the impact of e-governance around the world, especially the effect of the new innovation on the relationship between government and citizens.

METHODOLOGY OF THE STUDY

This study aims to examine the implementation of e-governance in Rwanda and how it has influenced the delivery of public services in particular and good governance in general. The sources of data for the study are both primary and secondary: primary sources include targeted interviews with government ministers, permanent secretaries, ordinary civil servants as well as ordinary citizens in Rwanda. Various government publications and other relevant literature such as speeches by public policy makers were

[28] Richard Heeks, "Understanding e-Governance for Development," *Information Technology in Developing Countries*, Vol. 11, No. 3, December 2001, p. 13.

also utilized. The interviews employed open-ended questionnaires to generate discussion and maximize the collection of relevant data.

Secondary sources of data included books, journals, newspapers and the Internet. The method of data analysis was qualitative but has been supplemented by statistical data. Attempts were made to establish relationships between the stated hypotheses and the collected data.

CHAPTER OUTLINE

Chapter One: Anatomy of the Study. This chapter forms the framework within which the study is undertaken. It comprises the statement of the problem, objectives, hypotheses, theoretical and conceptual framework, review of the literature, and the methodology used to conduct the study.

Chapter Two: Governance in pre-1994 Rwanda. This chapter analyses governance in Rwanda before the introduction of e-governance and the problems associated with public administration, which e-governance has sought to rectify.

Chapter Three: The Implementation of E-Governance in Rwanda. This chapter examines the various initiatives that have been put in place to implement the e-governance program in Rwanda.

Chapter Four: Critical Analysis of e-governance. This chapter critically analyses the performance of the e-governance program, its effectiveness in enhancing the delivery of public services to the citizens, participation by the citizens in governance, and the shortcomings of the program.

Chapter Five: Conclusion. This chapter offers conclusions based on the preceding discussion in the other chapters as well as recommendations.

CHAPTER TWO:

PUBLIC SERVICE DELIVERY AND POPULAR PARTICIPATION, 1962 - 94

The power of the Internet will change how we live and play – and for government, make a difference for all humanity.
John Chambers, CEO of Cisco Systems

Introduction

Rwanda is a small landlocked country of eight million people in central Africa. The country was a Belgian administered trust territory before gaining its independence on 1st July 1962. Rwanda has a long history of violent conflict that dates back to 1959 and includes the 1994 genocide. This chapter seeks to show the characteristics of the Rwandese public services delivery system between independence and the commencement of e-governance reforms in 1962 to 1994. The chapter is divided into three parts: part one forms the introduction; part two details the process of governance during the First Republic (1962-1973); and, part three deals with governance during the Second Republic (1973-1994).

Public participation and service delivery in Rwanda (1962-1994)

Led by the Hutu-dominated PARMEHUTU party Rwanda gained its independence from Belgium trusteeship administration on 1st July 1962 under the leadership of Gregoire Kayibanda. The process leading to independence campaign was characterized by acrimony between Rwanda's two major ethnic groups, the Tutsi and Hutu, a phenomenon that led to the so-called "Hutu Revolution" of 1959. The revolution was, an attempt by the majority Hutu to redress historical injustices of the Belgian colonial administration that had favored the minority Tutsi. The revolution overthrew of status quo; the Tutsi were dislodged from the position of political control, and the Tutsi monarchy abolished. The Tutsi were hence forth excluded from political life and faced

periodic purges from the Hutu dominated public institutions. The emergent Hutu dominance and Tutsi exclusion profoundly influenced public policy adopted by successive post-independence regimes in Rwanda 1994 genocide, and formed the background for the drive towards e-governance.

The governance structure created by Kayibanda lasted until 1994, albeit with a few changes. The president was at the top of this structure as the head of government. Fixed administration was based on the prefecture system whereby each prefecture was headed by a prefect. The prefect was appointed directly by the president. Prefectures were divided into communes, each presided over by a bourgemestre and an elected communal council. Below the commune was the sector, presided over by a conseil while below the sector was the cellule (village) comprising of individual houses (cells).[29] Rwanda had 10 prefectures and 229 communes by the time the country gained independence in 1962. The table below shows population density in Rwanda in each of the 10 prefectures by 1970.

[29] Newbury, C., *The Cohesion of Oppression: Clientship and Ethnicity in Rwanda 1860-1960*, New York: Columbia University Press, 1988, p. 99.

Table 1: Population Density in Rwanda by Prefecture, 1970

	Prefecture	Population	Area in square kms	Density (pop/square km)
1	Butare	570,650	1,830	312
2	Byumba	456,810	4,987	92
3	Cyangugu	251,310	2,226	113
4	Gikongoro	272,290	2,192	124
5	Gisenyi	444,870	2,395	186
6	Gitarama	436,690	2,241	195
7	Kibungo	214,220	4,134	52
8	Kibuye	250,660	1,320	190
9	Kigali	352,860	3,251	109
10	Ruhengeri	430,220	1,762	244
	Total	3,680,580	26,338	140

**Source: Newbury, C., *The Cohesion of Oppression: Clientship and Ethnicity in Rwanda 1860-1960*, New York: Columbia University Press, 1988, p. 222.

For most citizens of Rwanda the commune organization constituted their closest and most frequent contact with the government. The commune registered births, deaths, and marriages; issued identity cards that every male adult was required to carry, and other documents necessary for entry into post-primary school or job applications; and collected central government taxes. The commune also constituted the focus of commercial activities and a center for social activities, particularly the work of the "*foyers sociaux*"–

local branches of the government-funded women's agency that undertook to diffuse information about basic sanitation, nutrition, homemaking, among others. The commune also organized in some places local festivities for national holidays. Groups that represented each commune (dance troupes and singing groups) were often sent to represent the commune at prefectural or national festivities.[30]

The bourgemestre represented the needs and interests of the commune. He filled multiple roles – administrative, political and judicial. The administrative duties of the bourgemestre included tax collection, road maintenance, record keeping and supervision of development projects. The bourgemestre had political responsibility as well he was the intermediary between his people and the prefectural authorities. He heard complaints from the residents and also mobilized support. In some communes the bourgemestre also served as the local representative of the MDR-PARMEHUTU ruling party and served the interests of the party. The bourgemestre also enjoyed judicial powers; he was called upon to arbitrate local conflicts and disputes that were regarded too minor to be brought before the formal *Tribunal de Canton* – a district court that was lower than the appeals court of the prefecture (*Tribunal de premiere instance*). The majority of the cases introduced at the commune level concerned banditry (*urugomo*), land litigation or requests for land (*amasambu*), theft (*ubujura*), and divorce (*ubwahukane or ubutangukane*).[31]

The power of the bourgemestre lay largely in his ability to rally support. Each commune had a small police force of from 8 to 14 men, but reliance upon coercive power alone for administrative and other functions was quite insufficient. The bourgemestre control over various services needed by the population and enanbled the official to

[30] Newbury, C., The Cohesion of Oppression: Clientship and Ethnicity in Rwanda 1860-1960, New York: Columbia University Press, 1988, p. 222.
[31] Newbury, *Cohesion of Oppression*, op. cit., p. 223.

dispense patronage attract a following, and maintain his position. Political patrognage was prevalent although the population of the commune elected the bourgemestre. (bourgemestres and their councils were selected through direct popular elections - with secret ballot - held in each commune at three year intervals from 1960).

The prefect and the National Minister from the prefecture had the final word in drawing the list of candidates for the communal elections and thereby determined which candidates were eligible for election. Consequently, a clientship system continued to operate in that the links of the bourgemestre to his superiors (key people in government) could greatly influence his tenure; a shift of power at high levels, such as a change of minister or change of prefect could modify substantially the standing of a bourgemestre who was viewed as being under the patronage of the official in question. Similarly links to superiors affected the security of tenure of a prefect, while he attempted to ensure that his subordinates (bourgemestres) in particular were loyal to him.[32]

The defining characteristic of governance during the First Republic was ethnicity, regionalism and nepotism. The Hutu government of Gregory Kayibanda that took over power soon after independence consolidated its position by relying heavily on people from the south of the country. Consequently, the government failed to address the relevant development issues of the day and instead relapsed into the sectarian and ethnic politics of the colonial period. In additioon, the Kayibanda's leadership style was authoritarian, remote and secretive. The president was personally responsible for all appointments and nominations, even at the low levels of administration. A narrow circle of leadership recruitment based on regionalism, lineage, favouritism, and corruption was

[32] Ibid, p.225.

emphasized.[33] So it narrowed opportunity for participation became institutionalised and deprived the minority group.

Discrimination against the Tutsi, denied participation them a place in the political life of the country. The government introduced a discriminating quota system that favoured Hutu access opportunities in education and employment: usually 85 % for the Hutu (commensurate with their proportion of the population) and 10-15 % for the Tutsi. This was made possible through the perpetuation of the pass identity cards (first introduced by the Belgians in the 1930s) that indicated whether one was a Hutu, Tutsi or Twa. The card became the basis for determination of an individual access to employment and even a marriage partner.

Soon after independence there was the suppression of chiefs and establishment of bourgmestres ruling 229 communes. There were only 19 Tutsi chiefs out of the 229 chiefs. Members of the Tutsi community who illegally changed their ethnic classification (*abaguze ubwoko*) were punished by imprisonment, a fine, or both. The place of residence for all citizens was written on their identity cards. Travel was tolerated but no change of address. Moreover permission to move was required although it was often denied except for the purpose of school or employment.[34]

In 1965 Kayibanda banned all political parties. Opposition parties were co-opted into the government. Opportunity for popular participation thereby diminished. Political tension heightened was already present in the country due to the prevalent authoritarian tendencies, nepotism and corruption, even as Kayibanda, legally barred from seeking another term in 1973, altered the constitution to ensure continuity of his southern-

[33] Dixon Kamukama, *Rwanda Conflict: Its Roots and Regional Implications*, Kampala: Fountain Publishers, 1993, p. 58.
[34] Ibid, p. 77.

dominated regime. On 5th July 1973 Major General Juvenal Habyarimana, a Hutu from the north of the country, overthrew the Kayibanda regime, took power and consolidated it using the north (Habyarimana's home region) as a base.

The Second Republic (1973-1994) Habyarimana's regime continued the policies that had begun under Kayibanda. For instance, throughout the Habyarimana regime there was not a single Tutsi bourgemestre or prefect, there was only one Tutsi officer in the whole army, two Tutsi Members of Parliament out of seventy and only one Tutsi Minister out of a cabinet of between 25 and 35. There was institutionalized discrimination that allocated 9% of employment and education opportunities to the Tutsi, a fact concomitant to their percentage of the population.[35]

In 1973 soon after coming to power all political parties were outlawed and Article 7 of the 1978 Constitution enshrined single-party rule as a basic value of the regime. Yet in 1974, and in contradiction of his edict, Habyarimana formed his own party, the *Mouvement Révolutionaire National pour le Dévelopment* (MRND). The MRND was a totalitarian party; all Rwandese had to become members of the party including babies and old people. Bourgemestres and prefets were chosen from among the party cadres and the party was everywhere – every hill had its cell and party faithfuls, hoping for promotion and a personal boost willingly spied on anyone they were told to, and on a few others they were not told to as well.[36] Indeed under Habyarimana the bourgemestres were no longer elected by the electorate within the commune but were appointed directly by the central government at Kigali.[37]

---

[35] Ibid, p. 75.
[36] Ibid, p. 76.
[37] Newbury, *The Cohesion of Oppression*, op. cit., p. 292.

Habyarimana combined the roles of head of state, head of government and head of the single ruling party, MRND. The regime exhibited characteristics of benevolent despotism: in the words of Prunier,

> Along the somewhat reminiscent lines of eighteenth century European theories of 'benevolent despotism', President Habyarimana had decided to take upon his shoulders the heavy burden of the state so that his subjects could devote themselves entirely to the business of agriculture.[38]

In December 1983 Habyarimana, the sole presidential candidate, was re-elected back to office, a phenomena that repeated itself in 1988, this time with 99.98% of the vote. This process circumvented the stipulation in the 1978 constitution that the president serves only a single five-year term.[39]

Ironically, Prunier writes that the MRND was not supposed to be a 'political' party:

Indeed, the word 'politics' was almost a dirty word in the virtuous and hard working world of 'Habyarimanism'. The intrinsic value of being a Hutu, the total congruence between demographic majority and democracy, the almost total exclusion of the Tutsi from public administration, the need to follow a Christian life and the uselessness of politics, which should be replaced by hard work were the values often stressed by the regime.[40]

Verwimp argues that Habyarimana often asked his public to be creative, innovative and to take responsibility, but in fact, the peasants (Habyarimana's term) were not allowed to do anything unless instructed by the administration. Peasants were prohibited from to cultivation of the crops they wished, use the techniques of soil

---

[38] Gerard Prunier, *The Rwanda Crisis: History of a Genocide*, 1959-1994, Kampala: Fountain Publishers, 1995, p. 76.
[39] Kamukama, *Rwanda Conflict.*, op. cit., p. 76.
[40] Gerard Prunier, *The Rwanda Crisis: History of a Genocide*, 1959-1994, Kampala: Fountain Publishers, 1995, p. 76.

protection they wanted, move to the city, or to organize themselves outside the MRND. Instead, the peasants were told to work hard and increase their productivity, to obey the administration and to the burgomasters of their communes.[41] Indeed Habyarimana idealized rural life because it was easier to mobilize support in rural areas than in urban areas. This explains why in 1973, 95% of the population lived in the rural areas and in 1993, 95% still lived in the rural areas.[42]

By the late 1980s most of the political elite came from the two northern prefectures of Gisenyi and Ruhengeri, even though they accounted for hardly a fifths of the country's population and exactly a fifth of the ten prefectures in the administrative divisions of the country. By early 1990s 33 of 68 public institutions were under the directorship of individuals coming from either Gisenyi (19 posts) or Ruhengeri (14 posts). By mid-1980s nearly a fifth of the 85 most important posts as well as almost all the leading positions in the army and security services were occupied by individuals from Gisenyi (the president's own prefecture).[43]

With regard to the delivery of public services the strict code of conduct for civil servants and negation of any conflict of interest between their public and private activities was undermined by the Presidential Decree of 1975 (No. 556101) that allowed civil servants to conduct private business without restrictions, including ownership government rental houses, purchase of rented vehicles and ownership of interests

---

[41] Philip Verwimp, "Development Ideology, the Peasantry and Genocide: Rwanda represented in Habyarimana's speeches", available @ http:// www.forcedmigration.org
[42] Ibid.
[43] Mahmood Mamdani, When Victims Become Killers: Colonialism, Nativism and the Genocide in Rwanda, Kampala: Fountain Publishers, 2002, p. 151.

commercial enterprises. But the instruction only made official what had been common practice for some time.[44]

The Habyarimana regime, in its efforts at development, institutionalized the *umuganda* communal labour development policy, which required that peasants spend at least two days of every month on public projects. The policy was enforced by the party faithfuls, oftentimes amounting to four days or more and was equivalent to the forced labour of the colonial era (corvee). This policy was presented as the reestablishment of an institution that had long existed in Rwandan culture but that had been suppressed by the colonial economy. Economically, *Umuganda* was very important for Rwanda since it made an enormous amount of unpaid labor available to the state. During *Umuganda*, the Rwandan people built such things as schools, roads, sanitation facilities, and health centers. The local politicians and administrators were responsible for the organization of the weekly *Umuganda*, which gave these officials great discretionary power. They could decide who did and who did not have to participate. Not surprisingly, the cronies and friends of the regime escaped *Umuganda*. Increasingly, *Umuganda* (cooperative communal labour) was often abused and performed on land privately owned by the regime's cronies.

Umuganda would later be related to the organization of the genocide as it would become an effective instrument of mass mobilization in the implementation of the genocide. It constituted unpaid collective labor, supervised by the regime officials, which was in existence since 1974; subsequently, in the preparation of the genocide, the regime could build upon practices and their ideological and economic justification in place since the mid-seventies. *Umuganda* also gave the local party and state officials

[44] Ibid., p. 150.

knowledge and experience in the mobilization of the peasant population, a skill that was to prove deadly during the genocide.[45]

Having one single party was the right choice for Habyarimana given his ideology and his desire to stay in power. He could control the entire population, outlaw political opposition and implement his vision of society. The MRND was a truly totalitarian party: every single Rwandese citizen had to be a member, including babies and old people. All bourgmestres and prefects were chosen from among party cadres. The party was everywhere.[46]

In 1990, following pressure from internal groups and external actors, Habyarimana established the *Commission Nationale de Synthese* which was given 2 years to make recommendations for a new democratic national charter, but that was before the RPF invasion of 1st October 1990.[47] A revised constitution was enacted in 1991 that allowed for multiparty elections. However in 1994 after the death of Habyarimana on 6th April 1994, the country descended into tension before elections could be held.

Conclusion

This chapter has been an attempt to examine the system of governance under the Kayibanda and the Habyarimana regime. The chapter has demonstrated how the system of centralised governance adopted by the two post-independent regimes was often open to abuse. The universally accepted principles of good governance including among others: the separation of powers, rule of law, participation in decision making, transparency, efficiency and effectiveness, equity or fairness, accountability, and an enlightened population, were all lacking in Rwanda during the said period.

---

[45] Verwimp, op. cit.
[46] Prunier, op. cit., p. 76
[47] Mahmood Mamdani, *When Victims Become Killers,* op. cit., p. 153.

Consequently, the malaise in the body politic also affected the delivery of public services in Rwanda during the period 1962-94. Public service delivery was affected by problems such as: accumulation of powers in one person both at the central and local level; bureaucracy, which eroded the people's say in the management of their affairs, the system being generally accountable to central government instead of being accountable to the people; inadequate financial and other resources at the lower levels, all revenue being remitted to the central government; management structures at local administrative levels that supported a lack of transparency and accountability; and, favouritism and regionalism which ensured that some areas (especially the president's home areas) got more than their fair share of the national resources.

CHAPTER THREE:

THE IMPLEMENTATION OF THE E-GOVERNANCE PROGRAM IN RWANDA

Citizens would rather be online than in line!
Anonymous

Introduction

Between April and July 1994, there was a systematic campaign of genocide in Rwanda aimed at completely eliminating a substantial section of the population, and killing many others who opposed the ideology. Rwanda continues to live with the consequences of the genocide, which profoundly affected the lives of all Rwandans. The Government of National Unity came to power in Rwanda in 1994, in the midst of the genocide. The new government helped to end the genocide, but beyond that it inherited a country characterized by: lawlessness, insecurity from both within and without the country, destroyed infrastructure, dislocated public service systems, a displaced and traumatized population, and a deeply divided society.

Rwanda's drive towards e-governance therefore has to be understood against the background of its post-independence history as well as the effects of the 1994 genocide. Both the First Republic under Kayibanda and the Second Republic under Habyarimana exhibited autocratic tendencies that were antithetical to good governance. The two regimes were characterised by nepotism, corruption, impunity, excessive centralisation and ethnicity: characteristics that made the genocide possible.

The new Government in Rwanda believed that the genocide was a result of bad governance and authoritarian systems of government that did not provide for participation as well as one that failed to deliver needed services. The new government

sought to redress the problem by adopting and implementing policies that allow citizens to participate in the social and economic rebuilding of the country and to deliver required public service efficiently and effectively. Introduction of e-governance is one of the means the government seeks to employ to realize these goals, thus located within the broader context of good governance. This chapter intends to present the implementation of the e-governance program in Rwanda. The chapter shows the context within which e-government program has been introduced in Rwanda, the strategy that has been employed and the initiatives that have been implemented so far.

The Wider Context of E-Governance in Rwanda

Decentralization is crucial to the e-governance program. Decentralisation empowers sub-national levels of society through local participation in decision making and policy formulation leading to greater realization of efficient delivered services. Decentralisation of service delivery could be realized through devolution or deconcentration of decision-making, management and provision of services such as education, healthcare, infrastructure, irrigation, sanitation, and natural resource management to the local government level in order to improve citizen participation and efficiency. Decentralisation improves governance and public service delivery in two ways: increased allocative efficiency – through better matching of public services to local preferences; and, increased productive efficiency – through increased accountability of local governments to citizens, fewer levels of bureaucracy, and better knowledge of local costs.[48]

[48] Musoni, P., (Minister of Local Government, Good Governance and Rural Development) "Organizing Decentralised Governance for Effective Grassroots Service Delivery: Rwanda's Experience," A Paper Presented at a High-level Resource Experts Post-Conference Workshop on "Decentralised Governance for

The government of Rwanda produced in May 2000 Decentralisation Policy. The new government believed that existing centralized political and administrative structures restricted participation and hampered effective delivery of public services. The new government believed that the remedy was in the establishment of a consultative process that would improve local population and strengthen local governance structures in the delivery of services. Grass-root consultations were therefore initiated countrywide between 1996 - 1997. The initial results indicated that people wanted to have a say in the conduct of the affairs of the state, especially those directly affecting them, especially the delivery of services.[49]

National level consultations, *'Urugwiro'* meetings - that involved stakeholders in the governance arena produced two initiatives. First, the government developed an interim governance program (1998-2000) where seven priority areas for intervention: public sector reform; strengthening of the justice sector; support to parliament; decentralisation and local governance; civic education; social mobilization, and support to government action coordination. Secondly, a Ministry specifically responsible for promoting good governance for poverty alleviation and sustainable development was established in February 1999 - (The Ministry of Local Government).[50]

In 2000 the government unveiled the Rwandan Decentralisation Policy that aimed to achieve five key objectives.[51] The policy seeks to enable local people to participate in planning, decision making, implementation and monitoring of progress in

---

Effective and Responsive Service Delivery: Pre-requisites, Trends, Approaches, Policies and Capacity Building Strategies", 17-18 September 2004, Florence, Italy.

[49]Musoni, op. cit., p. 6.
[50] Ibid., p. 7.
[51] Ministry of Local Government and Social Affairs, Decentralisation Policy, Kigali, Rwanda, May 2000.

local matters, based on local needs, priorities, capacities and resources endowment. The realization of this objective required the transfer of power, authority, and resources from central to local government. Secondly, the policy aims to strengthen accountability and transparency in the delivery of services by making local leaders directly accountable to the communities they serve and by establishing a clear linkage between the amount of taxes people pay and the quantity and quality of services that are financed from the taxes. Thirdly, efforts are made to enhance the sensitivity and responsiveness of public administration to the local environment through placement of planning, financing, management, and control of service provision at the point where services are provided and enabling local leadership to develop organizational structures and capacities that take into consideration the local peculiarities. Fourthly, attempts are made to develop sustainable economic panning and management capacity at local levels that will serve as the driving motor for planning mobilisation and implementation of social, political and economic development to alleviate poverty. Lastly, the policy aims to enhance effectiveness and efficiency in the planning, monitoring and delivery of services by reducing the burden from central government officials who are distanced from the point where needs are felt and services delivered.

Implementation of the Decentralisation Policy is to be based upon four principles: guarantees for national unity, indivisible and even development; local autonomy, identity, interests and diversity; separation of political and administrative/technical authority; and, matching transfer of responsibilities with transfer of financial, human and material resources. The implementation process was set to be implemented in three phases: The first three years phase, would involve

institutionalization of decentralised governance through articulation of decentralization policy, establishment of the required legal framework, setting up the necessary administrative structures, holding grassroots and local government elections, undertaking development of human resource (especially the elected) capacity, sensitisation of the population to the legal and administrative aspects of decentralized governance.[52]

The second phase was set to cover five years, and intended to operationalize the decentralization system. The government aimed to introduce processes and procedures that facilitate greater participation of the citizens in decision making, planning and implementation of local development programs and projects; greater allocation of resources to the local governments and grass root councils for alleviation of poverty increased productive capacities, access to health care, education, information and food.

The third phase, was meant to build on the successes of the previous two phases to restructure the governance structures, processes, and procedures so as to bring government even closer to the people by having fewer tiers of administration. Implementation of the decentralisation program is therefore a long-term process. The process requires both political and financial commitment.

The essence of decentralisation is to devolve service delivery responsibilities to levels where beneficiaries can best access them, that is, closer to where they live. The progress in decentralisation is to be measured by the extent to which local governments assume the responsibilities and the means of the delivery of services, and local people participate in planning and general decision making process.

---

[52] Musoni, op. cit., p. 9.

Nevertheless, individual sectoral Ministries guide the implementation of sectoral decentralisation to ensure that the activities that take place at a local government level conform with the larger sector-wide approach. Similarly in addition sectoral ministries provide technical support to the decentralised entities and help to build local capacities.

The success of the decentralisation depends on two factors: the extent to which local governments take over the roles that are legally decentralised to them, and the efficiency and effectiveness with which they perform these roles and responsibilities. Secondly, the extent to which local governments facilitate and grassroots participation in decision making and in areas of developing implementation of service delivery programmes.

Fiscal decentralization is crucial for the success of the whole decentralization process, as decentralization and decentralized service delivery require financial resources. Local authorities need funds to finance programs that arise from their decisions. This can only be achieved through a tax system that is decentralized to the local level to allow local authorities capacity to raise own resources.

E-Governance in the Decentralization scheme

Involvement of local people in the process of planning, implementation, monitoring and evaluation of delivery of services at the grassroots requires availability of adequate and timely information. Such information in turn requires the introduction of modern use of Information Communications Technology (ICT). The government of Rwanda has realized this need and launched an elaborate Information Communications Technology (ICT) as a basis for the implantation of the program of decentralization in the Rwandese public service.

National Information and Communications Infrastructure (NICI), is supplemented with a comprehensive blueprint on an eight pillar set of strategies with a series of specific initiatives. These initiatives serve as components of a strategic vehicle for achieving policy objectives. The Government of has recognized that ICT as an enables the decentralization and strategy demands therefore a comprehensive approach for the entire public service. The Rwanda ICT policy includes therefore eight areas of strategic action – human capacity, infrastructure, e-government, community access, ICT in education, Foreign Direct Investment (FDI), regulatory and legal issues, and private sector facilitation.

The Rwandan ICT based Socio-Economic Development Policy and Plan Development Process is being supported by the Economic Commission for African (ECA) in the framework of the Africa Information Society Initiative (AISI) began in 1998. The process is divided into two phases. The first phase has concentrated on the development of a comprehensive ICT based Integrated Socio-Economic Development Framework for Rwandan (known as the *Framework Document*) and this was followed by the development of an ICT based Integrated Socio-economic Policy for Rwanda. The Government now has now established a comprehensive set of ICT policies and strategies as detailed in the GOR ICT Policy document.[53]

The second phase of the process concentrates on the development of the 1st ICT Plan (2001–2005) for Rwanda – the NICI-2005 Plan. The plan is guided by the Government's ICT Policies already discussed. The NICI Plan, the first of four to be developed within the framework of the Vision for Rwanda (VfR) - a 20-year

[53] For a comprehensive outline of these policies and strategies see, Government of Rwanda, An Integrated ICT-led Socio-Economic Development Policy and Plan for Rwanda (2001-2005), Kigali, Rwanda, 2000, pp.27-63.

development program - is a cornerstone of the Government's socio-economic development plan covers a five year period, starting 2001. The details of the Plan are contained in the Report: "An Integrated ICT-led Socio-Economic Development Policy and Plan for Rwanda 2001-2005". The report contains details of the GOR ICT policies and strategies and a summary of the programs and initiatives of the NICI-2005 Plan. The Plan is based on eight Pillars, each representing a Sub-Plan, which include: Human Resource Development Sub-Plan; ICTs in Education Sub-Plan; Facilitating Government Administration and Service Delivery Sub-Plan; Developing and Facilitating the Private Sector Sub-Plan; Deployment and spread of ICTs in the Community Sub-Plan; ICT Infrastructure Development, Legal Regulatory, Institutional Provisions and Standard Sub-Plan; and, Foreign Direct Investment Drive in ICTs Sub-Plan.

The Government of Rwanda (GOR) recognized the role that information and communication technologies (ICTs) can play a role in service provision and citizen participation in decision making.

The GOR has shown commitment to the implementation of the following broad objectives towards the achievement of socioeconomic development: to transform Rwanda into an IT literate nation; to promote and encourage the deployment and utilization of ICTs within the economy and society; to improve the efficiency of the Public Service; to improve the information and communications infrastructure of Rwanda; to transform the educational system using ICTs with the aim to improving accessibility, quality and relevance to the development needs of Rwanda; to improve the human resource development capacity of Rwanda to meet the changing demands of the economy; to develop the legal, institutional and regulatory framework and structures required for

supporting the deployment and utilization of ICTs within the economy and society; and, to facilitate the process of national reconciliation and reintegration by promoting social and cultural interaction within the society.

The ICT 2020 Policy

The ICT-2020 Policy, sets out the direction of the Government's ICT Policy and Strategies within the context of the GOR broad socio-economic development objectives within a twenty year period. The GOR, as part of its ICT policy and strategy, the government therefore fully committed to simultaneously pursue ICT Exploitation and Production policy involving: the utilization and exploitation of ICTs to support the delivery of government services and the activities of different sectors of the economy as well as the production, development and delivery of ICT products and services such as customs clearance, procurement tendering and taxation evaluation.

The GOR aims to fulfill the objectives in the twenty years time frame through the implementation of four 5 Year NICI Plans. The first three NICI Plans have placed laying emphasis on the exploitation and utilization of ICT products and services to support the delivery of government services and the activities of the different sectors of the economy while the forth NICI Plan has placed emphasis on the production, development and delivery of ICT products and services. Each of the NICI Plans contains four elements of ICT utilization and exploitation. The first three NICI Plans are designed to lay emphasis on program, projects and initiatives that promote the utilization and exploitation of ICTs in the Rwanda public service with the forth NICI Plan laying emphasis on programmes, projects and initiatives intended to accelerate ICT based provision and delivery of public services.

The GOR has acknowledged the role that ICTs can play in the delivery of government services; in bringing government closer to the people; and in facilitating the implementation of the Government's decentralization and villagization policy to support the activities of the local administrative units. The programme aims to modernize public services to facilitate administrative cost reduction and the promotion of efficiency in the delivery of government services to the people of Rwanda.

The GOR also acknowledged that the development and the exploitation of ICTs in the economy and society as well as the development of the information and knowledge economy needed to be supported and facilitated by appropriate legal provisions and legislation, regulatory framework and provisions as well as institutional structures. The Government therefore committed itself to the implementation of the relevant and appropriate sections of the "African Telecommunication Policy and Regulatory Framework Development Programme[54]," prepared by the African Ministers of Communication - the African Connection) at African Telecom in Johannesburg, May 1998 that cover areas like separation of government regulatory and operator roles; establishment of independent regulatory institutions; universal access to basic services and value added telecommunications services; and, the development of local communications industry towards competitiveness. The government is also interested in the enactment of the necessary laws and legislation in areas like Intellectual Property Law and Telecommunication Law to govern and regulate the activities of the telecommunication sector and in passing the necessary legislation to facilitate electronic commerce and other Internet-related activities in the country.

[54] African Telecommunication Policy and Regulatory Framework Development Programme: prepared by the African Ministers of Communication - the African Connection) at African Telecom in Johannesburg, May 1998

The First NICI Plan (2001-2005)

The GOR has introduced certain programs and initiatives within the first NICI Plan. First, the implementation of special government policy and budgetary packages, tax and investment incentive programmes, policy instruments and lead sector promotion packages and incentives to promote the exploitation and development of ICTs in the economy and society to facilitate and accelerate the process of moving Rwandan economy towards predominately an information and knowledge-base economy particularly in the modernization of public service delivery of services and improve on citizen popular participation in the decision making process.

Table 1: The NICI-2005 Plan

Summary of Programs, Initiatives and Actions Aimed at Facilitating Government Administration and Service Delivery

Programmes and Initiatives	Plan-Specific Actions	Implementation Agency
GOV-1: Initiative to set up NICI-2005 Plan Execution and Coordination Structures within Government Ministries, Public Service Organizations and other Organizations and Establishments involved in the implementation of the National Plan	G1.1: All Government Ministries, and Public Service Organizations (PSOs) and other relevant NICI-2005 Plan implementation agencies, establishments and entities to set up a Plan Execution and Coordination Committee (PECC) Note: The PECC is to be a 3 member committee chaired by the Minister in the cases of Government Ministries or the Chief Executive in the case of PSOs and other Organizations and Agencies. G1.2: All Ministries, PSOs and other NICI-Plan Implementation Entities to submit the list of the PECC members to the NITC and	Relevant Government Ministries, PSOs and other public and private sector Entities Relevant Government Ministries, PSOs and other public and private sector Entities

	the ICT Advisor to the President	
GOV-2: Programme to set up Information Technology Services Division or Directorate (ITSD) in Government Ministries and Public Service Organizations	G2.1: All Government Ministries, and Public Service Organizations (PSOs) to develop their respective Policy Statements on the deployment and exploitation of ICTs to support their organizational activities and operations within the framework of NICI-2005.	Government Ministries and PSOs in collaboration with the Ministry of Public Service and Labour
	G2.2: All Government Ministries, GOR Establishments, Public Service Organizations (PSOs) and the National Transitional Assembly to set-up their Information Technology Services Division or Directorate (ITSD).	"
	G2.3: The Kick-Start-Your-ITSD Programme Note: This Program is designed to Kick-Start the setting-up the ITSDs in the Ministries, PSOs. Each of these will be required under the Program to nominate 4 of their employees to undergo a four to six months *Fast-Track ICT Training Programme* to prepare them to serve as the skeleton staff of the ITSD of their organization.	"
	G2.4: All Government Ministries to develop their five-year IT Plan within the framework of NICI-2005.	"
	G2.5: All Government Ministries, PSOs and the National Transitional Assembly to develop annual IT Budgets (within the time-frame of NICI-2005) to implement their respective IT Plans.	"
	G2.6: Programme for Organizational Process Re-engineering of Government Ministries and PSOs to	

	facilitate Administrative Efficiency and Improved Service Delivery.	
GOV-3: The Government Computerization Project	G3.1: Government Ministries, PSOs and the National Transitional Assembly to commission an Organization-wide Corporate Network Implementation Report G3.2: Each Government Ministry or PSO to commission and implement a flexible organization-wide corporate network that can be scaled-up and enhanced to take advantages of future technological innovations, developments and offerings as well as meet the changing, administrative and support services needs of the Ministry or PSO while at the same time being cost-effective manageable and efficient. G3.3: Each Government Ministry or PSO to identify and develop for its specific use relevant computer-based applications, information and database systems to support its administrative and service delivery activities. G3.4: Each Government Ministry or PSO to connect their corporate network to GOV-NeT G3.5: Each Government Ministry or PSO to spread access to the Internet within their organization	Government Ministries & PSOs with technical support from RITA Government Ministries & PSOs with technical support from RITA Government Ministries & PSOs with technical support from RITA Government Ministries & PSOs with technical support from RITA Government Ministries & PSOs with technical support from RITA
GOV-4: GOV-NeT- The Government Intranet Project	G4.1: Commission a Project Report for the Implementation of GOV-NeT G4.2: Implement the Nodes of GOV-NeT G4.3: Implement the GOV-NeT common Internet Gateway G4.4: Implement Suitable	Ministry of Public Service and Labour with technical support from RITA '' ''

	Application Systems to facilitate information access, interchange and exchange over GOV-NeT within the civil and public service.	''
GOV-5: The GOR Web-Presence Development Project	G5.1: The Office of the President to develop the GOR Official Web-site to host all GOR official documents and information. G5.2: Each Government Ministry and Public Service Organization to Develop their respective Web-sites G5.3: Each Government Ministry and Public Service Organization Web-site to be linked to the GOR Official Web-site	The Government Web Master within the Office of the President Government Ministries and PSOs Government Ministries and PSOs
GOV-6: National Geographic Information System (GIS) Applications Project	G6.1 The NITC to set up the National Geographic Data Committee (NGDC) as one of its permanent Working Groups to oversee and advise on the implementation of GIS to support Government administration and service delivery in relevant Ministries. G6.2.1 Ministry of Transport, Public Works and Communication to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services G6.2.2 Ministry of Lands, Resettlement and Environmental Protection to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services G6.2.3 Ministry of Health to implement suitable GIS	NITC Ministry of Transport, Public Works and Communication Ministry of Lands, Resettlement and Environmental Protection Ministry of Health

	applications under the auspices of the National GIS Project to support its administrative and service delivery services G6.2.4 Ministry of Local Government and Social Affairs to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services G6.2.5 Ministry of Energy, Water and Natural Resources to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services G6.2.6 Ministry of Agriculture Animal Resources and Forestry to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services G6.2.7 Other relevant Ministries and Public Sector Organizations to implement suitable GIS applications under the auspices of the National GIS Project to support its administrative and service delivery services	Ministry of Local Government and Social Affairs Ministry of Energy, Water and Natural Resources Ministry of Agriculture, Animal Resources and Forestry Relevant Ministries and PSOs
GOV-7: Special Government ICT Initiatives	G7.1: The Local Government Computer Bureau (LGCB) Initiative: This Initiative is designed to facilitate the setting up of a Local Government Computer Bureau (LGCB) to provide computing services (on contract basis) to Local Government Administrations in all Prefectures. G7.2: Roads Records Information System (RORIS): RORIS is to be developed, maintained and supported by the	Ministry of Local Government and Social Affairs Ministry of Transport Public Works and Communications

	ITSD of the Ministry of Transport Public Works and Communications. G7.3: Military Personnel Information System (MIPIS): MIPIS is to be developed and maintained and supported by the ITSD of the Ministry of Defense and National Security G7.4: The National Identity (ID) Card System Computerization Project Note: This Project forms part of the Rwandan Electronic Government and Governance Initiative (REGGI) G7.5: The National Driving License and Vehicle Licensing and Registration Computerization Project G7.6: Initiative to Computerize Key Operations and Support Services of the National Police Force G7.7: Program to Computerize Key Operations and Support Services of the Rwandan Criminal Justice System	Ministry of Defense and National Security Ministry of Local Government and Social Affairs Ministry of Transport, Public Works and Communications in collaboration of other relevant Government Agencies Ministry of Interior & the Rwandan National Police Service Ministry of Justice and Institutional Relations
GOV-8: The Smart Government Initiative (SGI) Note: This Initiative forms part of the Rwandan Electronic Government and Governance *Initiative* (REGGI)	G8.1: The NITC to set up the *Smart* Government Initiative (SGI) Committee as one of its permanent Working Groups to oversee and advise on the implementation of the SGI. G8.2: Government Electronic Procurement and Settlement System (GEPSS) Project G8.3: The Public Information Kiosks (PIKs) Initiative G8.4: The Smart Government Initiative (SGI)– Private Sector Partnership Program	NITC The Relevant Government Ministry or Agency in collaboration with the Smart Government Initiative (SGI) Committee

* * *Source: Government of Rwanda, An Integrated ICT-led Socio-Economic Development Policy and Plan for Rwanda (2001-2005), Kigali, Rwanda, 2000, pp. 39-43.

National ICT Structures and Bodies

The GOR is committed to setting up the necessary National ICT Structures and Bodies to coordinate, support and facilitate the implementation of its ICT Policies, plans and strategies. Some of the structures and bodies were established in 2001. The GOR established: the National Information Technology Commission (NITC), the NITC Working Groups, the National Geographic Data Committee (NGDC) and the Rwanda Information Technology Authority (RITA).

The National Information Technology Commission (NITC) is a high powered body whose membership include a number of Cabinet Ministers from key Ministries and representatives from the private sector, academia, labour organizations, among others, and chaired by the President. The NITC, is responsible for: coordination of the development of Rwanda's ICT policy, strategies and plans; supervision of the work of RITA and other government agencies involved in the implementation of programmes, projects and initiatives that form part of government ICT policy, strategies and plans and commissioning and setting up the NITC Working Groups, and supervising their work [55].

The NITC Working Groups (NITC-WGs) is intended to address specific national ICT issues and priority subject areas of ICT policy, that the NITC from time to time was to identify for attention. Some of the NITC-WGs were required to address specific technical issues while some were to advise the NITC on specific policy matters that relate to specific sectors of public service delivery and society deliberate on specific subject matters that needed to be addressed within the Government's ICT policy or plan.

[55]Rwanda 2020 ICT Vision

The National Geographic Data Committee (NGDC) was intended to coordinate the development and maintenance of geo-spatial data (for example the distribution of health centres, schools, road networks) at the national level, to define the nature and characteristics of the geoinformation infrastructure and supervise its implementation and functioning, besides acting as an advisory body to the government.

The Rwanda Information Technology Authority (RITA) was mandated to be the national ICT Implementation and Coordination Body under the supervision of the NITC. RITA was to be an autonomous body with linkages to the IT Divisions/Directorates of government Ministries as well as with other ICT-related organizations in the public and private sector. RITA, was also responsible for co-ordinating National ICT initiatives and projects; facilitating the implementation of NICI plan programmes; facilitating the work of the NITC, the NITC-WGs and IT Division/Directorates of Government Ministries; providing advisory and technical support services to the NITC, the NITC-WGs as well to public and private sector organizations. In addition RITA was also to have had responsibility for the development of national ICT standards and guidelines, provision of ICT Consultancy, and raising public ICT awareness through education.

Progress of the Implementation of ICT Program Process

Institutions

Progress has been made in implementation of the e-governance program in Rwanda. As part of its wide information technology reforms, the government set up the Rwanda Information Technology Authority (RITA) up in 2001.[56] Several institutions have also been set up by the GOR to help streamline the management of the country's socio-economic affairs. Notable among them are: The Rwanda Revenue Authority for strengthening the country's revenue collecting capacity, The National Planning

[56] The New Times, 7th June, 2005, online edition.

Commission to strengthen the capacity for formulating policies and mobilizing resources, The Rwanda Investment Authority for strengthening mechanisms of attracting local and foreign investment, Office of the Auditor General of State Finances for ensuring transparency and accountability, The National Tender Board for strengthening mechanisms of government procurement to provide credible and reliable statistics for planning. The establishment of these institutions provides a foundation for strengthening aspects of good governance that such institutions champion.[57]

Human Resource Development

The thrust of the policy is to develop a large local community of producers and consumers of ICT products and services in order to incorporate ICT in the fabric of the country's core economic activities. The policy aims to support initiatives that increase ICT education and training through all channels in order to create a large pool of diverse multi-skilled and technically competent manpower. Apart from supporting extensive training both locally and abroad, the government has established the schoolnet project that provides 15 networked personal computers in each of the 12 provinces. The project has also provided one server connected to the Internet via dial-up or wireless technology. Basic ICT training (word processing, spreadsheets, and basic hardware maintenance) is provided for two teachers in every school, who in turn train the larger school community.[58] In addition, the government in 2004 distributed to secondary schools 450 refurbished computers that Computer Aid International (a UK-based NGO) had donated as part of the efforts to enhance the on-going school computerization program.[59]

---

[57] The Government of Rwanda, National Program for Strengthening Good Governance for Poverty Reduction In Rwanda, Kigali, Rwanda, March 2002, p. 19.

[58] Bayingana M., "In Pursuit of a Knowledge-Based Economy Within Vision 2020", RITA Unpublished paper, 2004, p. 4.

[59] UNDP, Rwanda Country Review on the Role of ICT in Poverty Reduction and in the Achievement of the Millenium Development Goals (MDGs), 2004, p.13.

E-Government

Government Ministries in the Rwanda face many challenges in the provision of public services, challenges that can largely be overcome through implementation of ICT programs specifically the government has to provide enhanced services to citizens, strengthen revenue collection, reducing fraudulent practices, manage efficiently available resources and measure accurately and predict the outcome of public policies and programs. The government has therefore endeavored to extend its ICT coverage so as to increase support for core functions of Ministries and other agencies facilitate information management, sharing and improve local decision making processes in the context of on-going decentralization initiatives.

The main ICT implantation initiatives involve office automation, e-mail, web access and data communications. Infrastructure projects and back-office applications have been implemented. Most Ministries have local area networks. Some of the network span entire buildings and others are connected to Wide Area Networks. Many of the initiatives are still in the pilot phase but are expected to be replicated as they mature. In the longer term, the e-government program is set to consolidate government services by focusing on systems that enhance inter-operability, eliminate duplicative processes and redundancy and foster integrity. The program is also expected to establish an efficient core infrastructure that spans all major government departments in Kigali and links provincial and district headquarters to central databases and services. The purpose of the program is to enable online transactions.

The Rwanda Information Technology Authority (RITA) conducted a survey in 2004 to assess the status of implementation of the national Information and

Communication Infrastructure Plan (the NICI Plan). The survey focused on the current level of staffing, equipment and networking in the President's Office, Prime Ministers Office, the National Assembly, the Senate and the sixteen ministries. The survey report indicates that by 31st March 2004, some ministries had made progress while others had not. For all the 19 ministries, there were 37 qualified ICT personnel. The institutions had a total of 1172 computers (27 servers, 1095 PCs and 50 laptops). In terms of networking, out of the 19 institutions 15 had Local Area Networks (LANs), 4 ministries had no Local Area Networks (LANs), 3 ministries had Wide Area Networks (WANs) and 8 ministries had websites.[60] The public is now able to access information on the government ministries on matters of ministerial policies, programs and activities.

As part of its responsibility to, RITA has also recently accomplished important tasks intended to support ICT capacity-building in government institutions. The tasks include the distribution of additional equipment donated by donors; training of ICT technical staff in government ministries and establishment of Rwanda Internet Exchange Point (RINEX). Five of the six existing Internet Service Providers (ISPs) in Rwanda (Rwandatel, Terracom, KIST, NUR, Mediapost and ARTEL) now participate in four of them are already exchanging traffic locally.[61]

Some initiatives have been taken to improve the telecommunications infrastructure and increase access to communication facilities in the country. Telecommunications and connectivity infrastructure development, TERRACOM, a local telecom company, has recently completed the laying of underground fibre optic cables in Kigali. Plans to extend this network to the provinces using overhead cables supported by

[60] UNDP, Rwanda Country Review, op. cit., p. 13.
[61] Ibid., p. 13.

the existing telephone and electric poles. ARTEL, a local company specializing in rural telephony, is continuing to expand its countrywide network of VSATs to provide wireless connectivity.[62]

The following measures have also been instituted to help spread ICT use in Rwanda: in 2004 the GoR announced policy guidelines for tax-exemption on PCs and software in order to encourage home computing; the liberalisation of telecommunications and communication services, a number of privately owned FM radio stations are opening in Kigali and other towns; The telecommunication facilities operated by RwandaTel, which had been badly damaged during the 1994 war, have now been largely repaired, expanded and upgraded; the Rural Electrification and Telecom initiatives are implemented; MTN, a mobile telephone service provider, is implementing a "Fixed" Mobile Programme; Communications Business Solutions, a private company, has introduced a countrywide system of portable telephone sets known as "Tuvugane" which are popular because their rates are lower than those of other public phones; several privately owned Internet cafes have been opened in Kigali and other major towns; the "dot.ORG" Rwanda Project, financed by USAID and implemented the Washington-based Academy for Educational Development, has established entrepreneur-operated Community Internet Centres (CICs) in the underserved secondary towns of Nyanza, Gitarama and Nyamata, and the project will soon establish another CIC in Nyagatare.[63]

The Rwanda Revenue Authority (RRA) has automated its operations such that transactions can now be done electronically. For instance, customs laws require that a trader (any person importing or exporting) declare the details of import or export

[62] Ibid., p. 13.
[63] Ibid., p. 30.

transactions, details of which are used for any tax calculations and for national controls and trade statistics. The trader can now provide the details of the transaction to the Authority electronically without visiting the offices, by simply connecting to the Customs computer system from his/ office.

The Rwanda Revenue Authority has 4 Data Centers, 15 servers and 400 personal computers connected to the wide Area Networks (WAN) are connected to 17 government agents and ministries via fiber optic. The Authority has also developed a VHF Radio Network with many repeaters stations deployed throughout the country to facilitate mobile transit and revenue protection operations. Local Area Networks extensions and VSAT connections to some border posts are also in progress.[64] Currently, the RRA has a comprehensive taxpayer database capable of containing full details of taxpayers, a central taxpayer master file showing detailed tax accounts for each taxpayer in respect of all taxes, and fully comprehensive management information reports including detailed reports of filers, non-filers, stop-filers, and tax debtors.

All the above mentioned efforts of the Government of Rwanda are geared towards realizing effective service delivery to the ordinary Rwandan citizen through provision of information, as well as bringing the services closer to the citizen. The next chapter analyses whether the implementation of the program has resulted in any tangible benefits to the citizens of Rwanda.

[64] SAM Toyota, Deployment of E-Government Applications: The Case of Rwanda Revenue Authority, Unpublished Paper, June 2005.

CHAPTER FOUR:

ASSESSMENT OF THE E-GOVERNANCE PROGRAM IN RWANDA

Introduction

The introduction of e-governance in Rwanda represents a paradigm shift in public administration; it was to radically alter the relationship between the citizens and the government. The genesis of the program has to be understood against the background of Rwanda's post-colonial history as well as the effects of the 1994 genocide. In essence, years of monopolization of power by a small clique, impunity, corruption, regionalism, and ethnic hatred that characterized the First and Second Republics culminated in the 1994 genocide, a traumatic event that marked a turning point in Rwanda's history.

Besides these features of bad governance were others that included: inadequate participation of the majority of the population in making decisions affecting their lives due to excessive centralization of decision making structures, passivity, lack of initiative and a dependency syndrome on the part of the citizens. The Government of National Unity, in its efforts at national reconstruction and reconciliation, realized the need to depart from earlier practices of citizen exclusion from decision-making and secrecy that characterized the past and political regimes, by institutionalizing citizen participation in matters affecting them and providing relevant information for them to make informed choices. Thus was born the concept of e-governance, is now in its fifth year of implementation. This chapter intends to critically analyse the progress made so far in the implementation of the program. Part one forms the introduction; the second part is an overview of the benefits that have already accrued from the program, while part three is an outline of the challenges faced in the implementation process.

Anatomy of Success

The e-governance program in Rwanda is part of the 'Vision for Rwanda (VfR)' 2020 development plan by which the government hopes within twenty years to transform Rwanda's subsistence agriculture-dominated economy into a service sector driven high value-added information and knowledge economy that can compete on the global market. The application of Information Communication Technology (ICT) in both the private and the public sector is part of the overall plan to achieve this objective.

An assessment of the effectiveness of the e-governance program in Rwanda must take into account its overall objectives. First, the program aimed at improving government efficiency, effectiveness and productivity as well as information provision and service delivery to the public. Secondly, it was intended to reduce administrative, operational and transactional costs of the government's administrative activities, service delivery functions and operations, eliminate redundant spending and unnecessary excessive paperwork across the three tiers of government (executive, legislative and judiciary). Lastly, the government's ability to serve citizens and businesses and its responsiveness to particular demands from society was to be enhanced. This would not only transform government into a people-centered entity but also facilitate the process of bringing the government closer to the people.

The measure of the success of the e-government program in Rwanda can be defined in terms of the extent to which it brings about improvements in both the delivery of services to the public and in government administration and efficiency. This depends very much on improvements in organizational activities, operations, procedures and processes of government agencies (as service producers and providers).

The foundations for the implementation of the e-governance program in Rwanda have already been laid. All government ministries and public service organizations (PSOs) had by 2002 developed their five-year ICT Plan within the framework of the NICI-2005. Further, each public organization and ministry has set up an Information Technology Services Division or Directorate (ITSD). Each ministry and public service organization has developed a policy statement on the deployment and exploitation of ICTs to support its organizational activities and operations within the framework of the NICI-2005. While the policy statements are meant to guide the ministry or public organization in its efforts to apply ICT to its operations it is the ITSD that are actually supposed to coordinate and execute the actual implementation process. Indeed the Kick-Start-Your-ITSD Program, was supposed to help initiate and establish ICT use within each ministry and public services organization, and by which each organization and ministry was supposed to nominate four of their employees to undergo a four to six months Fast Track ICT Training Program to prepare them to serve as the skeleton staff of the ITSD of the organization, had been completed by mid-2004.

Each government ministry now has computer based applications, information and database systems to support its administrative and service delivery activities. Each government ministry is presently connected to GOV-NeT, the government's wide Area Network (WAN) that links all government ministries and provides a common gateway to the Internet. The objective of GOV-NeT is to facilitate information access, interchange and exchange within the civil and public service. The Office of the President has also developed the government's official website www. that hosts all government official documents and information. In addition some ministries and public service organizations

have also developed their own respective websites that are linked to the government's official website.

Though the e-governance program is still in its infancy stages several benefits are already being felt by both the government and the citizens. Currently traders electronically declare their goods and know their bills without interacting with the revenue staff. The Revenue Authority is partnering with SIMTEL, the electronic payment company so as to fully operationalize the Pay-Your- Tax- Online system by early next year. This will further enhance operational transparency and accountability among tax payers. It will even be further enhanced when the planned Government Electronic Procurement and Settlement System is implemented. E-Government in Rwanda is yet to be fully implemented. An E-Government project document has been prepared outlining the short to medium and long-term scope of programs envisioned. The former is confined to applications that enhance capabilities and information dissemination while the later will consolidate government services by constructing systems that will eliminate duplicative processes, enhance interoperability, reduce redundancy, foster integrity, and provide measurable improvement in performance. Currently applications that enhance capabilities and information dissemination have been implemented or are under implementation; however systems that will eliminate duplicative processes, enhance inter-operability, reduce redundancy and provide measurable improvement in performance are envisaged for the next phase.

The Parliamentary Database and Information System (PADIS) of the National Assembly and the Cabinet Decisions Information System (CADIS) have been developed. Both represent efforts by the government to conduct business electronically through the

application of ICTs in order to enhance efficiency and effectiveness. Information like details and profiles of parliamentarians, membership of the committees of parliament, laws enacted by parliament, on-going deliberations in parliament, and the exact contents of cabinet decisions can now be easily accessed by the public. Kenyan MPs who recently toured Rwanda were amazed at the enhanced efficiency of the Rwanda parliament due to the employment of ICTs.[65] Key among the features of the parliament were the fact that business is conducted electronically, including voting, and every MP has a laptop to help him access the Internet and participate in parliamentary proceedings.

The effect of the use of ICTs in the Rwandan parliament are reduction in costs of printing paper since everything is done electronically, increased accessibility of parliamentary proceedings to the public, and enhanced efficiency. For instance,

> While in Kenya, MPs have to go to for divisions when they disagree on some matters, in Rwanda they just touch a button which determines where their vote goes. The divisions in the Kenyan chamber goes on for close to two hours while their counterparts in Rwanda seal the debates in less than five minutes.[66]

The implementation of the e-governance program in Rwanda, although done on a limited scale, has had some unintended consequences. For instance, the introduction of ICTs in government institutions has led to massive staff layoffs, especially for non-essential cadres or those whose work has been made redundant by the new technology. For the instance the Ministry of Local Government has laid off nearly one-half of its staff since the program began. In a country with no developed private sector and where the government is the largest employer such layoffs have led to anxiety among members of staff in most public institutions, thus seriously undermining support for the program led

[65] Cyrus Kinyungu, "Kenyan MPs Humbled in Rwanda", Daily Nation, September 8th 2005, p. 11.
[66] Ibid., p. 9.

to institutional resistance and slow development of an ICT culture slowing down the process of implementation. In a country like Rwanda where poverty is widespread in Rwanda, with about 64% of the population living below the poverty line, retrenched staff have minimal skills to provide for themselves, and the e-governance program is commonly perceived as intensifying poverty for the ordinary citizen than as an avenue for improving the efficiency and effectiveness of the government.

Furthermore, easy accessibility to information has led to proliferation of contradictory viewpoints. Though plurality of opinion is healthy for the advancement of the democratization process, some of the views aired are divisive for a country emerging from the 1994 genocide and attempt nation building and reconciliation. This has been seen in the increasing number of FM stations that have recently emerged.

Challenges that Face E-Government Program

E-Government in Rwanda is to be fully implemented. However, the program faces various challenges that will need to be overcome. First, Rwanda is to set up all the key REGGI-enabler institutions envisaged in the NICI-2005 Plan. The setting up of these institutions is crucial for e-government take-off in Rwanda. Secondly, Rwanda is yet to enact laws and legislative provisions and instruments necessary for providing the requisite legal and legislative enabling environment to facilitate the take-off and the roll-out of the government's e-governance program. For instance, cyber laws related to legislation for the prevention of computer crimes, laws relating to security including digital signatures, cryptography and encryption, copyright and intellectual property laws, electronic government legislation, laws relating to the privacy of data, and freedom of access to information laws are yet to be enacted.

Thirdly, Rwanda lacks an adequate number of professional level human resources to support the country's e-governance program. The development and deployment of a critical mass of skills and personnel in key technical and professional areas is necessary for the success of the e-governance program. The population of Rwanda considered illiterate is 65% of whom 52% are female and 48% are male.[67] The country also has a high primary school dropout rate and very low secondary school enrolment rate, in essence limiting the number of people who could effectively utilize services provided by the e-government program. The majority of the working population (91.1%) are actively involved in agriculture with only 1.7% working in the industrial sector and 7.2% in the service sector of the economy.

Fourthly, Rwanda lacks an extensive national communications infrastructure to support the roll-out of a comprehensive e-governance program. The problem is further compounded by the fact that the country is one of the least urbanized countries in Africa with 94% of its population leaving in scattered settlements in the rural areas. The Internet infrastructure within the country is still very limited and the vast majority of people currently does not have online access, hence cannot access online government services whenever they have been made available. Public access centers like tele-centers, public information kiosks (PIKs) and other such public access channels are not yet widespread within the country.

Lastly, the government lacks adequate financial resources to invest in the implementation of a comprehensive e-governance program at a go. Rwanda's huge public

[67] John Mutamba, "Gender Participation and Women's Empowerment as Strategies for Good Governance and Poverty Reduction," A unpublished paper prepared by the Ministry of Gender and Women in Development (MIGEPROFE) for presentation at the conference on Intergrated Evaluation and Planning for Strengthening Good Governance for Poverty Reduction In Rwanda, Kigali, October 2001.

debt is a major impediment to economic development. This problem is made even more acute by the fact that the country has to depend on external donors for meeting its balance of payments deficit, a problem that is reflected in the implementation of most development programs including ICT use. Constraint of funds the e-governance program is being implemented on a piecemeal basis with each government agency implementing components of the program as of when funds become available from the government or donors. Indeed, a substantial portion of the e-governance program depends on the availability of donor funding and this has affected the pace and areas of focus of the implementation process.

Part of its wide information technology reforms, the government is soon set to replace the Rwanda Information Technology Authority (RITA) with the National Information Communication Technology (NICT) as the overseer in the execution of the Information Communication Technology (ICT) plan from 2006 to 2010.The new body will manage the implementation of the second phase of the ICT plan codenamed Electronic Government (E-Government) system which is due from 2006 to 2010. The Rwanda Information Technology Authority (RITA) was started in 2001 but is largely a technical body, with its authority lying below that of ministries, thus making it difficult to supervise the implementation of ICTs in ministries. NICT would supervise RITA and other institutions with a view to strengthening them.[68]

[68] "Rwanda: Government to constitute new ICT body," The New Times, 7th June 2005, available at http://www.apc.org/english/rights/africa/index.shtml?apc=21865s21845e_1

CHAPTER FIVE:

CONCLUSION

The 1994 genocide in Rwanda constitutes an important moment in the county's history, a moment when the country came on the brink of self-destruction as an estimated one million people were killed in less than 100 days. The genocide represented a crisis of governance in the Rwandan polity, a phenomena brought about by the accumulation of contradictions in the country's socio-economic and political make-up since independence. These contradictions set in motion forces that challenged the hegemony of the one party state, and attempts by proponents of the one party state to perpetuate their monopoly over power culminated in the genocide.

This study set out to examine the implementation of the e-governance program in Rwanda. The study was informed by the fact that after the traumatic events of 1994, the new government of national unity that ascended to power had the enormous task of rebuilding and reconciling the country. In order to achieve this, the government attempted to institute a paradigm shift in the realm of governance. The shift was pegged on the assumption that one of the key reasons that had made the genocide possible was because the citizens in pre-1994 Rwanda were never given a chance to participate in making decisions on matters affecting their lives.

The study found that both the First Republic under Kayibanda and the Second Republic under Habyarima exhibited the hallmarks of poor governance. This was represented in traits such as discrimination based on ethnicity, religion and region, inadequate participation of the majority of the population in decision making, monopolization of power by a small clique in Kigali, corruption and nepotism in the

management of public affairs, and occasional elimination of those considered a threat by the regime. The net effect of this on the civil service was inadequate service delivery, lack of professionalism in the service, lack of distinction between politics and administration, and a decline in the morale of the service members. In fact civil servants such as the gendarmerie played a crucial role in executing the genocide plan.

Against this background that the post-1994 government instituted the concept of e-governance. The study found out that e-governance is part of a wider attempt by the government at nation building, reconciliation and development. It represents a paradigm shift because the citizens are given a chance to participate in making decisions on issues affecting them through devolution and decentralization of power to local units; while devolution and decentralization involve shifting management of public affairs to the lowest local units, e-governance is the employment of information communication technologies (ICTS) to help the citizens make informed decisions. These technologies include radio, print media, telephones, television and most importantly the Internet.

This study set out to test two hypotheses: first, that e-governance has led to increased participation by citizens of Rwanda in the decision making process, thus enabling good governance; and, secondly that e-governance expedites delivery of public services and cuts down costs (time, money).

The findings of the study indicate that the e-governance initiative in Rwanda has resulted in increased participation of the citizens of Rwanda in the decision making process. This participation can be seen in the fact that citizens are able to make decisions on matters affecting them at the local levels and can also air their views in various forums including radio, print media and on the Internet. However, the study found out that use

of ICTs to make informed decisions is predominant in Rwanda's urban areas than in rural areas, and this was attributed to the lack of an ICT infrastructure in such rural areas.

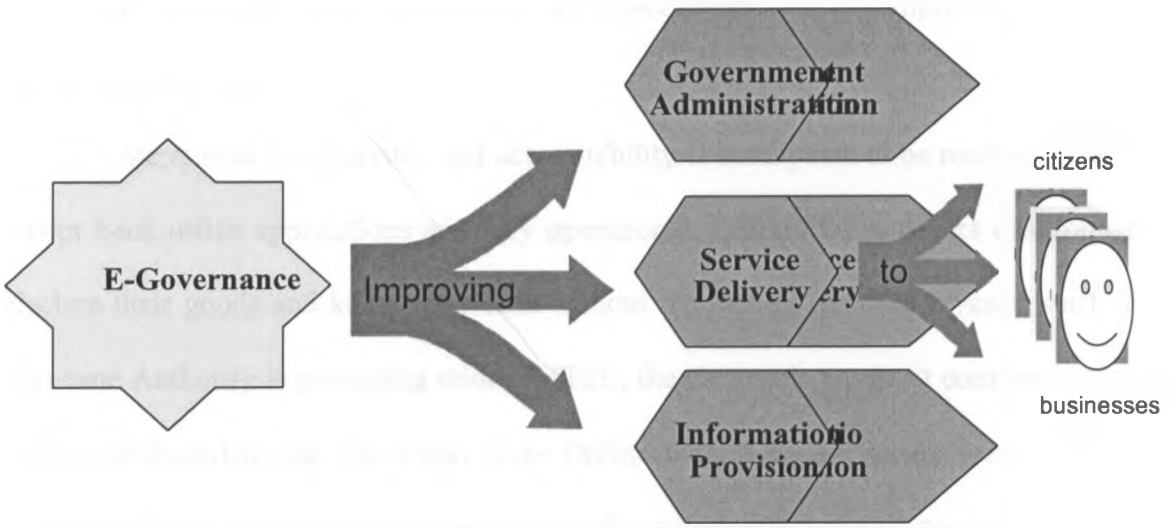
The study also found out that the e-governance program in Rwanda has expedited the delivery of public services and cut down administrative costs. Two of the notable areas in which this has manifested itself are the legislature and the Revenue Authority. However, the phenomena is slowly spreading to other sectors like telecommunications and the police force. There was reduced costs to the government in areas where implementation was on track, especially in the reduction of the costs of printing papers as well as saving on the wage bill due to retrenchment of some workers.

However, the findings of the study also indicate that the e-governance programme has faced numerous challenges including lack of an ICT culture in Rwanda, lack of resources, low human resource, and institutional resistance among others. Overcoming these challenges will take time and that is why the Rwandan government, in recognition of this fact, adopted a staggered evolutional e-governance system implementation strategy.

Finally, what is the assessment on the e-governance program in Rwanda can be argued that the program is still in its infancy stage and expecting it to deliver much at this moment is not just realistic. Indeed, for a country with no established tradition of ICT usage like Rwanda, and which is just emerging from the genocide of 1994 it can be asserted that the e-governance program implementation is on track. The first four years have been pre-occupied with setting up the necessary infrastructure (physical and human) for the program and hopefully results will pick up at the second stage.

The Rwandan ICT-led Socio-Economic Development Policy and Plan Development Process supported by the Economic Commission for African (ECA) within the framework of the Africa Information Society Initiative (AISI) began in November 1998. Prior to the development of the Rwanda's integrated socio-economic ICT Policy and Strategies, the Government of Rwanda recognized the following among others: Firstly, The role that information and communication technologies (ICTs) can play in accelerating the socio-economic development of Rwanda towards an information and knowledge economy. Secondly, that in the new emerging economic order, the fundamental basis for wealth creation and national prosperity is information and knowledge and that Rwanda cannot afford to be without either of these. Thirdly that if Rwanda is to move her industrially weak, subsistence agriculture based economy towards an information and knowledge economy it will need to develop a comprehensive integrated ICT-led socio-economic development policies, strategies and plans.

Part of its commitment to pursue an ICT-led development agenda, the Government acknowledged the crucial role that ICTs can play in the delivery of government services; bringing the government closer to the people and in facilitating the implementation of the Government's decentralization policy and programmes to support administrative and service delivery activities and operations at different levels of the government's administrative structure. In other words e-Governance would improve Government Administration, Service Delivery and Information Provision to citizens and businesses as indicated in the diagram below.



Only 26% of set national ICT objectives were achieved in the first 5 years of the NICI Plan according to Rwanda Informal Technology Agency (RITA). What major reasons account for this dismal performance.

The major reasons include but are not limited to the following: Firstly, the policy was to be implemented over a 5 yr period (2001-05), however implementation did not start until 2003. Hence close to 3yrs of implementation was reviewed. Secondly, slow pace in setting up fully operational Enabler Institutions. Thirdly, Recruitment and retention of technical and professional human resources especially in Government. Fourthly, substantial part of the implementation of the Government's e-Government program depends on the availability of donor funding and as such dictates the pace and areas of focus of the implementation process.

Through the implementation of office automation, e-mail, web access and data communications, Government operation efficiency has increased. It's however yet to witness the significant and far reaching difference anticipated in operational efficiency

given that major back-office applications are either currently under implementation or yet to be implemented.

Operational transparency and accountability is anticipated to be realized when the major back office applications are fully operational. Currently tax payers electronically declare their goods and know their bills without interacting with the revenue staff. The Revenue Authority is partnering with SIMTEL, the electronic payment company so as to fully operationalize the Pay-Your- Tax- Online system by early next year. This will further enhance operational transparency and accountability among tax payers. It will even be further enhanced when the planned Government Electronic Procurement and Settlement System is implemented.

Important to note that e-Government in Rwanda is yet to be fully implemented. An E-Government project document has been prepared outlining the short to medium and long-term scope of programs envisioned. The former is confined to applications that enhance capabilities and information dissemination while the later will consolidate government services by constructing systems that will eliminate duplicative processes, enhance interoperability, reduce redundancy, foster integrity, and provide measurable improvement in performance. Currently applications that enhance capabilities and information dissemination have been implemented or are under implementation, however systems that will eliminate duplicative processes, enhance inter-operability, reduce redundancy and provide measurable improvement in performance are envisaged for the next phase.

E-Governance implementation challenges

There are few "real life" examples of successful e-government. Most governments have not changed their processes in any way, and instead have automated flawed processes. A bid gulf between a "pretty web site" and integrated service delivery. Government budgets and administration tends to be in departmental silos, but e-government cuts across departments. Attention to "citizen portals" has taken attention away from internal government functioning and government to business. Even best in class state and local e-government solutions have not gained widespread adoption. Governments often underestimate the security, infrastructure and scalability requirement of their applications.

Central agency is needed to facilitate and coordinate the effort of implementation of e-governance programs. The processes need to be redesigned alongside technology implementation; otherwise the result will be automation of flawed process. Change in mindset is difficult to adhere, from a traditional department-centric thinking to a customer-centric and user-friendly approach. Citizen and business portals should be organized around citizen needs and goals, and not around government departments and agencies. Standards are virtually important in supporting interoperability. Effective communications across government agencies is essential. Accessibility is an important consideration. Effective partnerships with private sector is crucial. Successful e-government initiatives require coherent integration of government infrastructure, systems, processes – the scale of change required is immense.

Recommendations

First, given the fact that Rwanda is a poor country that lacks the requisite resources to implement the e-governance programme at once it would be better to diversify its partnerships with external actors, probably those that can provide effective technology suitable to the Rwandese situation but also cheaper. India is a possible candidate since it has conditions nearly similar to Rwanda's (a high rural population) and has come up with various technological devices suitable for its rural areas.

Secondly, the e-governance program, even though it adopts a staggered model, looks too ambitious. It would be better for the government to identify key priority areas and focus on them first instead of classifying all areas as priority, which disperses the few resources available thinly among so many projects, only to await when the resources will be again available. It would be better to concentrate on a few key areas and expand as the first areas are completed rather than moving all at once.

Thirdly, exclusive focus on the implementation of the e-governance program and efficiency may ignore the wider social issues that may eventually lead to the failure of the program. For instance, while use of technology is always desirable its adoption always affects the lower cadres in any institution more than it does the upper cadres. The challenge for any government is to find suitable alternative employment opportunities for the retrenched employees. Failure to do so in a country characterized by massive poverty and a delicate situation of unity, as Rwanda is, may lead to political instability, especially if this army of unemployment gets in touch with someone out to make political capital.

BIBLIOGRAPHY

BOOKS

Cf. W.O Oyugi, *"Decentralization for Good Governance and Development: The Unending Debate"* in Regional Development Dialogue (RDD), Vol. 21, No.1, Spring 2000.

Dixon Kamukama, *Rwanda Conflict: Its Roots and Regional Implications*, Kampala: Fountain Publishers, 1993.

For a comprehensive outline of these policies and strategies see, Government of Rwanda, *An Integrated ICT-led Socio-Economic Development Policy and Plan for Rwanda (2001-2005),* Kigali, Rwanda, 2000.

Fountain Ians (2001), *Building the Virtual States: Informational Technology Change*, Washington DC: Brookings Institution.

Gerard Prunier, *The Rwanda Crisis: History of a Genocide*, 1959-1994, Kampala: Fountain Publishers, 1995.

Keniston, K. (2002) *IT for the common man: Lessons from India.* NIAS Special Publication, SP7-02, Bangalore: National Institute of Advanced Studies, Indian Institute of Science

Kuhn, T., *The Structure of Scientific Revolutions*, Chicago: Chicago University Press, 1970.

Mahmood Mamdani, *When Victims Become Killers: Colonialism, Nativism and the Genocide in Rwanda,* Kampala: Fountain Publishers, 2002.

Newbury, C., *The Cohesion of Oppression: Clientship and Ethnicity in Rwanda 1860-1960*, New York: Columbia University Press, 1988.

Peter M. Eckersley, Lisa Harris, & Paul Jackson, *E-Business Fundamentals: Managing Organisations in the Electronic Age*, New York: Routledge, 2003.

R. Mansell & Uta When, Knowledge Societies: Information Technology for Sustainable Development, Oxford: Oxford University Press, 1998.

Robert Hunter Wade, *"Bridging the digital divide: new route to development or new form of dependency?," Global Governance*, Vol. 8, No. 4, 2002.

Snellan Ignace (2002), "Electronic Governance: Implications for citizens, Politicians and Public Servants," *International Review of Administrative Sciences.*

JOURNALS AND DOCUMENTS

Cyrus Kinyungu, "Kenyan MPs Humbled in Rwanda", Daily Nation, September 8th 2005.

Dinesh C. Sharma, *"Technologies for the People: A Future in the Making,"* *Futures,* Vol. 36, No. 6-7, 2004.

John Mutamba, *"Gender Participation and Women's Empowerment as Strategies for Good Governance and Poverty Reduction,"* A unpublished paper prepared by the Ministry of Gender and Women in Development (MIGEPROFE) for presentation at the conference on Intergrated Evaluation and Planning for Strengthening Good Governance for Poverty Reduction In Rwanda, Kigali, October 2001.

L. Byrne, *Information Age Government: Delivering the Blair Revolution*, London: Fabian Society, 1997, quoted in Christine Bellamy, "From Automation to Knowledge Management: Modernizing British Government with ICTs," *International Review of Administrative Sciences*, Vol. 68, No. 2, June 2002.

M. Jae Moon, "The Evolution of E-government among Municipalities: Rhetoric or Reality?" *Public Administration Review*, Vol. 62, No.4, July 2002.

Ministry of Local Government and Social Affairs, *Decentralisation Policy*, Kigali, Rwanda, May 2000.

Musoni, P., (Minister of Local Government, Good Governance and Rural Development) *"Organizing Decentralised Governance for Effective Grassroots Service Delivery: Rwanda's Experience,"* A Paper Presented at a High-level Resource Experts Post-Conference Workshop on "Decentralised Governance for Effective and Responsive Service Delivery: Pre-requisites, Trends, Approaches, Policies and Capacity Building Strategies", 17-18 September 2004, Florence, Italy.

Nagesh Kumar and Alka Chadha, "Exploiting the Potential of Information and Communication Technologies for Development in South Asia," *South Asian Survey,* Vol. 9, No.2, July 2002.

R. Gibson, P. Nixon & S. Ward, *Political Parties and the Internet: Net Gain?,* New York: Routledge, 2003.

Richard Heeks, "Understanding e-Governance for Development," *Information Technology in Developing Countries*, Vol. 11, No. 3, December 2001.

Robert Hunter Wade , "Bridging the digital divide: new route to development or new form of dependency?," *Global Governance*, Vol. 8, No. 4, 2002.

Sadik Hasan, "Introducing E-Government in Bangladesh: Problems and Prospects" in *International Social Science Review*, Vol. 78, No. 3-4, 2003.

SAM Toyota, Deployment of E-Government Applications: The Case of Rwanda Revenue Authority, Unpublished Paper, June 2005.

Shanthi Kalathil, "Dot Com for Dictators" in *Foreign Policy*, March-April 2003.

Sood, A.D (2001). *"How to wire Rural India: The Problems and Possibilities of Digital Development"*, Economic and Political Weekly.

The Government of Rwanda, *National Program for Strengthening Good Governance for Poverty Reduction In Rwanda*, Kigali, Rwanda, March 2002.

The *New Times*, 7th June, 2005, online edition.

UNDP, *Rwanda Country Review on the Role of ICT in Poverty Reduction and in the Achievement of the Millenium Development Goals (MDGs)*, 2004.

UNDP, Third Kenya Human Development Report: *Participatory Governance for Human Development, 2003.*

Wilson Dizard, *The Coming Information Age: An overview of Technology, Economics and Politics*

WEBSITES

Jim Melitski, "The World of E-Government and E-Governance," http://www.aspanet.org/e-government/melitski.html,April 20, 2003.

Katherine Reilly, "Government, ICTs and Civil Society in Central America: Is National Government ICT Use Contributing to More Democratic States?" available at @ http://katherine.reilly.net/e-governance

Mathias Finger and Gaelle Pecoud, "From e-government to e-governance? Towards a model of e-governance", Electronic Journal of E-Government, Available at http://www.ejeg.com/volume1-issue1-art1.htm

On Rwanda - E-Governance in the The Association for Progressive Communications (APC) Monitor http://www.apc.org/english/rights/africa/index.shtml?apc=21865s21845e_1

Philip Verwimp, "Development Ideology, the Peasantry and Genocide: Rwanda represented in Habyarimana's speeches", available @
http:// www.forcedmigration.org

"Rwanda: Government to constitute new ICT body," The New Times, 7th June 2005, available at
http://www.apc.org/english/rights/africa/index.shtml?apc=21865s21845e_1

Sachdeva, S (2001), White Paper on "E-governance Strategy in India" Available at http//www.yahoogroups.com/egov-india/Files

Weber on bureaucracy
http://www2.pfeiffer.edu/~lridener/DSS/Weber/WEBERW8.HTML