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MAJUMO KHUNGA

entitled

A Legal Perspective of the Applicability of Electronic Governance at the Lands and Deeds Registry,

be accepted for examination. I have checked it carefully and I am satisfied that it fulfils the requirements relating to the format as laid down in the regulations governing directed research essays.

22nd DECEMBER, 2005

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DECLARATION

I MAJUMO KHUNGA Computer No. 20015593 Do hereby declare that the contents of this Directed Research Essay are entirely based on my own findings and that I have not in any manner used any person's work without acknowledging the same to be so.

I bear absolute responsibility for all errors, defects or any omissions herein.

Date: 22ND DECEMBER 2005

Signature: __________________________
DEDICATION

To a choice friend Senkwe for the value added to this work and the friendship shared.
ACKNOWLEDGEMENTS

My indebtedness goes out to the many people who, in one way or the other, contributed to the success of this work.

I particularly wish to express my gratitude to Mr. Sydney Watae for the invaluable supervision accorded to this work.

Most of all, I wish to acknowledge God Most High, Father, Son and Holy Spirit for giving me ALL that I have needed both for Life and Godliness... to Him alone be ALL the Glory, Honour and Praise!
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"Reasonable people adapt themselves to the world. Unreasonable people attempt to adapt the world to themselves. All progress, therefore, depends on unreasonable people."

George Bernard Shaw
ABSTRACT

This study is an examination of the legality of electronic government as practiced at the Lands and Deeds Registry Department at the Ministry of Lands. The study conjectures that the introduction of the electronic governance system at the Lands and Deeds Registry has interfered with the proper discharge and execution of legal functions thus resulting in some legal ramifications.

The study therefore undertakes to examine the regulatory framework governing e-government at the Lands and Deeds Registry. That is to say the policy legal and institutional frameworks currently in place.

It is the revelation of the study that what is in place at the Lands and Deeds Registry is mere computerisation as opposed to e-government. This is in view of the fact that service delivery is partly electronic and partly manual. This dual arrangement, the study further reveals, has culminated into some legal ramifications. It has also been revealed that, whereas concepts of e-government have been embraced in the administrative functions of the Ministry of Lands, no corresponding reforms have been embarked upon regarding the legal framework. As an immediate consequence of this, the Principal Systems Analyst (an administrative functionary) is de facto the custodian of the Land Register while the Registrar of Lands and Deeds is merely de jure custodian of the same.

It is the conclusion of the study that the Institutional and legal frameworks governing e-government at the Lands and Deeds Registry are inadequate in their current form and e-government is therefore bound to fail. It is the recommendation of this study that institutional and legal reforms be expeditiously undertaken in keeping with the now approved National Information Communication Technology Policy.
<table>
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CHAPTER ONE
THE EMERGENCE OF E-GOVERNMENT

1.0.0 INTRODUCTION

This chapter, being the start of the paper, seeks to give an introduction to the discussion by highlighting and putting into perspective the gist of the study. The chapter commences by discussing the major concepts under discussion, namely electronic government and deeds registration and how these concepts have been used in this paper.

1.1.0 ELECTRONIC GOVERNMENT

Technological advancement particularly the World Wide Web has continued to affect the way we live, communicate, and do business. This effect of technology happens at interpersonal level, person to institution level as well as institution to institution level. Thus the way in which government business inter se its myriad institutions and especially with members of the public is done is not an exception. Synonymous with this practice are the terms electronic commerce and electronic government.

While electronic commerce might broadly be understood to mean the transacting of business over computer networks, and while the phrase "electronic government" might mean different things to different people,

---

2 Promoting Electronic Commerce in South Africa: Some Academic Perspectives
suffice to say electronic government is more generally defined as
"automating the delivery of government services"\(^3\). Under the National
Information & Communication Technology Policy, e-government has been
defined as "...the delivery by Government of products, services, policies
and the engagement of stakeholders in civic and government matters
through the use of Information and Communication Technologies in order
to achieve Government to Consumers, Government to Business and
Government to Government interaction and transactions."\(^4\) Put differently,
electronic government has a lot to do with the medium through which
government services are delivered more than the substance of those
services. That is to say a departure from the manual or traditional way of
delivering services to the electronic way. To that extent, electronic
government invariably involves the use of information as well as internet
technology. It follows also from this that electronic government remains a
continuous optimization service delivery tool whereby both internal and
external information flows within government institutions continue to be
transformed with every advancement of technology\(^5\). As we read this
paper, the electronic way of employing electronic government is
constantly changing. New concepts that were absent in yesteryears have
been brought on board.

\(^3\) Bonham G. M., Seifert J. W. and Thorson S. [2001], The Transformational Potential of e-Government -
http://www.maxwell.syr.edu/maxpages/faculty/gmbonham/ecpr.htm, retrieved on 11/05/2005
\(^4\) National Information and Communication Technology Policy [2005], viii
\(^5\) Supra note 3
1.2.0 THE EMERGENCE AND USE OF ELECTRONIC GOVERNMENT
Whereas electronic government is not an end in itself but a facilitating process, its use has been well received the world over. Responsible for the emergence of electronic government has been the perception of potential opportunities that it offers towards improved governance. To that extent, electronic government is an off-shoot of both good governance and globalization.

1.3.0 GOOD GOVERNANCE AND ELECTRONIC GOVERNMENT
As a concept of the development process, good governance is perceived to comprise the processes and structures that guide political and socio-economic relationships, with particular reference to "commitment to democratic values, norms & practices, trusted services and just and honest business"\(^5\). Thus good governance embraces characteristics of transparency, accountability and broad participation besides providing a framework within which political, social and economic priorities are based vis-à-vis the need for equity, poverty reduction and improved quality of life. It is envisaged that where electronic government is employed, good governance as portrayed above would be the inevitable result.

1.4.0 GLOBALISATION AND ELECTRONIC GOVERNMENT
As a concept derived from globalization, good governance entails bringing the entire government system of operations under one microscope.

\(^5\) Good Governance and the Processes and Structures of Socio-economic Relationships
Indispensable to attaining such an objective has been the use of information technology and computers. World Bank analysts have therefore indicated that "late starters in the telecommunications handicap will risk exclusion from the global economy and severe competitive disadvantage for their goods and services." ⁷

1.5.0 OTHER BENEFITS AND OPPORTUNITIES OF E-GOVERNMENT

Aside the general trends in good governance and globalization, the following benefits and opportunities offered by electronic government have specifically been responsible for the increase in the use of electronic government:

1.5.1 Efficiency

Improved efficiency in service delivery by government institutions is perceived to be driving the world towards the use of electronic government. It is argued that efficiency in the use of electronic government will not only reduce errors akin to manual systems but improve the consistencies of outcomes by automating standardized tasks.⁸ For instance the rate of data analysis may be standardized to the same extent as that of its capture. In deeds registration for instance, the rate at which interests are entered in the electronic lands register can be increased by doing away with some repetitive tasks. Internet technology

assumes this role of automating such tasks. Invariably, efficiency will give rise to streamlined operational procedures that will not be dependent on the peculiar attributes of different individuals. In streamlining operating procedures of organizations, e-government is likely to reduce on costs, and amount of time spent on tasks.

1.5.2 New and improved services

Electronic government is also said to advance the quality, range and accessibility of services. Closely associated with efficiency is an improved quality of service which may take the form of augmented efficiency brought about by the capacity to complete transactions faster. E-government is also closely associated with easy access to services. Regarding deeds registration, this can be practically manifested by the ease with which records from the Land Register can be accessed where e-government is being employed. Then it would not matter where the person conducting the search is domiciled throughout the country. Needless to mention is the fact that e-government also qualitatively enhances the business relationship between government and the citizenry.

1.5.3 Enlarged and Improved Citizen Participation

As a concept interlaced within the precincts of good governance whereby citizen participation in governance issues and decision making is

---

* Supra note 3
encouraged, e-government has been favoured for this very reason. As discussed under new and improved services above, e-government tends to increase the number of people involved in the interaction that takes place at the point of service delivery. Even those who, on account of remoteness of their seat of habitation, were unable to access services due to geographical separation can do so with much ease where e-government has been successfully employed.10

1.5.4 Enhanced Decentralisation process

It is far easier to implement any decentralization programme by employing information technology. This arises from the ease with which information can be shared across the country without for instance having to physically and literally duplicate information data banks to every other place. Equally, the number of human personnel required in decentralizing with e-government is minimal.

1.5.5 Developed and Improved National Information Infrastructure11

As one is likely to guess, the use of e-government will always go with technological infrastructure. It follows therefore that the initiative to go electronic will trigger the thrill to develop and improve on technological infrastructure as well. This is as much true for developed as well as

11 ibid.
developing countries. Jeffrey Seifert states in his analysis of opportunities of online governance that "additional investment in National Information Infrastructure (NII) could lead to increased attention to information security issues and the development of new technologies.‖

In the case of Zambia, the existence of already established infrastructure such as the Mwenbeshi Satellite Earth Station has generated interest in the development of internet related technologies. What was once an underutilized piece of infrastructure can once more take to life. Additional infrastructure has since been imported and developed owing also to the global momentum to employ e-government.

1.5.6 Perception of global expediency

The various motivations towards the emergence of e-government discussed above are not exhaustive in themselves. Whereas the above factors echo notions of economic advancement and prosperity, e-government has also become popular purely on account of expediency tied with the global trend. This explains why even countries that are not technologically ready have vigorously embarked upon this "must have" conduit of service delivery. It is no wonder that many governments and institutions have had to make costly mistakes. In the case of the Lands and Deeds Registry, the transition from manual storage of information was needlessly done hurriedly and in a haphazard manner. As a result,

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12 Motef J. D., CRS Report RL30153, Critical Infrastructures: Background, Policy, and Implementation
certain portions of information have been lost without any hope of recovery or trace. In as much as no one must be left out in technological advancement, this alone should never be a reason for embracing e-government albeit it has empirically been so in many a case.

1.6.0 CONCLUSION

This chapter has discussed and put into perspective the global emergence of electronic government. It has been established that electronic government is not a stand alone concept as it stands and falls with such concepts as globalization and good governance. The more these concepts are emphasized, the more pronounced the need for electronic government. It is in this vein that employment of electronic government is on the increase particularly in developing countries such as Zambia. This glaring increase, the chapter has shown, is also in view of the many advantages and opportunities brought about by the use of electronic government over and above the disadvantages. With this background, the next chapter considers e-government at the Lands and Deeds Registry.
CHAPTER TWO

CHALLENGES OF E-GOVERNMENT AT THE LANDS AND DEEDS REGISTRY

2.0.0 INTRODUCTION

The previous chapter has sought to explain some factors that have been responsible for the emergence and increase in the development and use of e-government. The chapter has discussed the influence of the global move towards good governance and globalization on e-government. It has also been shown that the many opportunities and benefits that e-government offers have equally popularized its employment.

It is no wonder many Ministries and government departments in Zambia are now embracing and employing e-government. Such is the case at the Lands and Deeds Registry at the Ministry of Lands. What used to be a manual system of deeds registration has been turned into an electronic one. This chapter discusses the actual and potential challenges and ramifications that have come with the introduction of e-government at the Lands and Deeds Registry. The chapter also briefly brings to the fore the problem under study.
2.1.0 THE LANDS AND DEEDS REGISTRY

The Lands and Deeds Registry Act provides the basis for the systematic registration of all interests in land and other immovable property.\textsuperscript{13} Whereas registration of an interest in land does not serve to cure the instrument being registered of any defect\textsuperscript{14}, failure to register an interest may render such an interest void at law.\textsuperscript{15} Registration of interests also serves as an information data bank whereby inventory of all interests in land can be checked.

The Lands and Deeds Registry began its operations as a manual system whereby documents exchanged between the government and the citizen or indeed any other client were all manually processed. The registers themselves were manual registers that took the form of big books at times referred to as "black books". It follows also that information storage was equally done manually. For instance, registration of an interest in the Land Register required actual endorsement under the hand and seal of the Registrar. This process was admittedly very demanding and time consuming. Being manual, the registers were confined to one place at any given time unless where the register was physically moved or photocopies made. This was time consuming and costly and it made access to the registers limited since access was very centralized.

\textsuperscript{13} Draft Land Policy, 9
\textsuperscript{14} Section 21 of the Lands and Deeds Registry Act
\textsuperscript{15} Section 6 of the Lands and Deeds Registry Act
2.2.0 E-GOVERNMENT AT THE LANDS AND DEEDS REGISTRY

The development of the electronic Land Information System in Zambia started in 1984 as a joint project between the Swedish government through Swedesurvey and the Ministry of Lands.\textsuperscript{16} The project which was funded by Swedish aid (Sida) initially put in place three electronic registers within the Ministry of Lands, the Property Register (Survey Department), the Lease Payment Register (Lands Department) and the Land Register (Lands and Deeds Registry Department).\textsuperscript{17} The computerized registers, the first of this kind in Africa, were completed in 1990. Some of the fruits of the computerized system have included a simplified offer registration, lease numbering, recording of movement of files, ground rent collection and registration of interests in the land register.\textsuperscript{18}

Some time in 2001, the initial DOS based operating system was transformed and upgraded to a Windows based system with a view to increasing the efficiency of service delivery from every point. Whether or not this objective has been attained remains to be determined but suffice to say, some of the records in the Land Register were not captured during the period of transformation. This omission, calculated or not may have untold implications.

\textsuperscript{16} Swedesurvey, Land Information System – Zambia, 1
\textsuperscript{17} Ibid
\textsuperscript{18} Ibid
As regards system arrangement and maintenance, the data collected from
the three manual registers is stored in separate data files although the
information is somewhat shared.\textsuperscript{19} System users are however restricted
to their domain while full access to all resources in the system is strictly
restricted. The restriction is at system level, file level and access level.
This restriction has to some extent protected the system resources from
unauthorized use. Loss of data is protected against by regular backup
onto a backup drive. It can however be argued that insecure custody of
the backup drive might lead to insecurity of the entire system. In terms of
capacity building, an IT section (under the Planning and Information Unit)
responsible for the management and further development of the system
has since been formed within the Ministry.\textsuperscript{20}

2.3.0 IMPORTANCE OF DEEDS REGISTRATION

The importance of a good deeds registration process cannot be
overstated especially given the important place that property and
especially property rights and interests play in both social and economic
development of any country. How data relating to landed property is
managed is therefore critical given the increasing scarcity of land,
otherwise the extent to which disputes will rise will be untold. A good
deeds registry system also acts as a reservoir upon which good
investment decisions can be based as it secures and protects people's

\textsuperscript{19} Supra note 16 at 2
\textsuperscript{20} Ibid
interests in property. On the other hand, the need for better service delivery must not be seen as an affront to any legal provisions upon which such a service thrives. The legality of landed property information systems must therefore be balanced with the ease with which such information is managed and retrieved. The need to consider the challenges posed by the use of electronic government is therefore increasingly becoming important.

2.4.0 GENERAL LEGAL UNREADINESS

While the above trends in the use of electronic government and in particular the advantages provide many opportunities for both government and its people, challenges do exist as well. While this departure from our traditional unipolar governance system to a global one is taking place, we cannot ignore to transform our legal framework to ensure that we equally have legislation that would enable the facilitation of e-government. To the extent that technology is in a continuous state of flux vis-à-vis its evolution, the applicable e-government facilities may become obsolete with time. Both the technology and the human resource employing it may be overtaken with the passage of time. On the other hand, questions bordering on security and general legal readiness remain incessant. Our laws must also be adapted to be able to take care of electronic crime over and above facilitating the discharge of e-government.21 It may well be

added also that the efforts to arrest electronic crime should neither stifle nor antagonize smooth government operations. Legislation on e-government must therefore be carefully drafted to reflect this balance. This is jurisprudentially the purpose of law, at least to the social jurist who views law as an enabler of change. We have examples of the Rent Act in Zambia as obsolete laws and this paper hopes to salvage the Lands and Deeds Registry Act, among other laws being implemented at the Ministry of Lands, from possible and similar relegation into oblivion.

2.5.0 CUSTODY OF INFORMATION

The Lands and Deeds Registry Act specifically recognizes the Registrar of Lands and Deeds as the legal custodian of the various Registers maintained at the Registry.\textsuperscript{22} Storage, retrieval and manipulation of data is the preserve of the Registrar. Deletion and correction of the Land Register is to be done at the behest of the Registrar. This position was easy to appreciate before the advent of e-government at the Ministry of Lands. It is no longer the same now that data is managed by the Principal Systems Analyst. The implication flowing from the changes in the establishment structure of the Ministry of Lands without corresponding change in the legal structure has been that some statutory functions are now being carried out administratively. Such is the case as between the office of the Registrar which is a creation of statute and the Principal Systems Analyst, a purely administrative functionary. Whereas the

\textsuperscript{22} Section 3 of the Lands and Deeds Registry Act, CAP 185 of the Laws of Zambia
Registrar is the legal custodian of the Land Register\textsuperscript{23}, the Principal Systems Analyst retains de facto custodianship pursuant to duties assigned to him under the Establishment Structure of the Ministry of Lands.

Very related to the challenge surrounding custody of information is the inherent conflict between statutory functions and administrative functions. Admittedly, the Registrar may not be conversant with information technology issues and therefore cannot function without the Principal Systems Analyst. With or without consent, the Principal Systems Analyst reserves the mandate to effect some statutory functions administratively. The establishment structure compounds this problem by creating a structure where the Principal Systems Analyst is accountable to the Director of Human Resources and Administration rather than the Registrar.

\textsuperscript{23} Ibid
Figure 2.1 Organisational Structure at the Ministry of Lands showing reporting structure of Principal Systems Analyst
In light of this reporting structure, it is inaccurate to construe the actions and duties of the Principal Systems Analyst as emanating from the authority conferred upon him by the Registrar. So interpreted, this lack of consent criminalizes the functions of the Principal Systems Analyst in light of the Computer Misuse and Crimes Act, 2004.

2.6.0 SECURITY OF INFORMATION

Security of information is one of the most significant challenges for implementing e-government initiatives. This has equally been identified as a concern in the national ICT policy particularly relating to information passing through networks and systems such as computers.\textsuperscript{24} The policy specifically identifies the following e-government security challenges\textsuperscript{25}:

(a) Security of government, public and private networks and communications systems in general; and in particular those systems carrying sensitive and critical data/information of great value to Government, businesses and individuals;

(b) Protection of networks and information systems to guard against various types of malicious crimes and unauthorised access; safeguarding against undermining consumer confidence in online

\textsuperscript{24} Supra note 4 at 18
\textsuperscript{25} Ibid
services including those based on E-Commerce, E-Government and E-Health systems;

(c) Privacy of individuals, businesses and Government arising from connectivity to local, national and global networks.

In the United States, six areas of weakness namely security program management, access controls, software development and change controls, segregation of duties, operating systems controls, and service continuity have been identified as issues contributing to the security challenge.\textsuperscript{26}

Whereas the national ICT policy underscores the importance of security in a bid to minimize on the negative impacts of e-government, the challenge continues unabated. A case in point vis-à-vis the security challenge at the Lands and Deeds Registry is the unreported case of \textit{Eustace Spaita Bobo v. Commissioner of Lands and Pande Kampukesa Kabinga}\textsuperscript{27} where a spate of interference with the information in the LIMS resulted in a dispute over ownership of Lot No. 9124/M. While the case was discontinued for want of jurisdiction by the Lands Tribunal and a fresh action is expected to commence in the High Court, the undisputed facts demonstrate the vulnerability of an insecure e-government system at the

\textsuperscript{26} Supra note 10
\textsuperscript{27} LAT/46/2004
Ministry of Lands. The records indicate that some entries in the Land Register were deleted to perpetrate an illegality and the officer whose password is alleged to have been used has since been dismissed from employment. It may well be that prosecution of the officer could not take place in the absence of a law criminalizing such conduct. At the time of the alleged misconduct, the Computer Misuse and Crimes Act 2004 was just being legislated.

Another problem arising from the Eustace Spaita Bobo case relates to admissibility of electronic evidence before our Courts of law. It is still uncertain under which law electronic evidence would be admissible. Our law of evidence may also have to be accordingly revised.

2.7.0 PRIVACY OF INFORMATION

The nature of the system design at the Ministry of Lands is such that information in the system is shared by different users.

Notwithstanding the different access levels in place, it is not uncommon to find that different departments can easily access information from other departments. For instance, the Commissioner of Lands in processing Consent applications is able to access the Land Register without having to obtain clearance from the Registrar. This again is a result of the failure to adhere to the legal position on custody of information against the
background of efficiency and effectiveness. The ugly side of this challenge presents itself when a dispute has arisen before the Courts. It is the legal custodian of information who then has to account and often times defend matters fuelled by others.
LANDS INFORMATION MANAGEMENT SYSTEM

Ministry of Lands
Mulungushi House
- Human Resource & Administration
  - Planning & Information
  - Accounts
  - Internal Audit
- Lands
- Lands & Deeds
- Survey

LIMS Operations

Survey
- Number Property
- Survey Data
- Sub-divide
- Cancel Property
- Property History

File Registry in Lands Department
- Creation Applications
- Lend a file
- Return file
- Lodge with deeds registry

Server

Estates
- Rent Enquiry
- Inspections
- Consents
- Raise Annual Rent Bills & Print
- Value Properties

Lands
- Create Offers
- Offers Enquiry
- General Enquiry
- Withdraw Offer

IT
- Amending
- Correcting Error
- Updating Records

Auditor
- Audit Trail
- Produce necessary reports

Lands & Deeds
- Lodge documents
- Preliminary Register
- Title Deeds
- Land Register Report
- Registration of Docs

Cashier
- Payments
- Receipts
- Banking Report

Head of Accounting Unit
- Reversals
- Monitoring
- Printing necessary Reports

Fig. 2.2 Information sharing within the LIMS at the Ministry of Lands
Source: E. Mushota – Principal Systems Analyst, Ministry of Lands
2.8.0 CYBER CRIME AND THE LAW OF EVIDENCE

It is not in dispute that cyber crime has become rife even in Zambia. However, we are yet to hear of actual prosecution of such cases. This is very true of the Lands and Deeds Registry where such cases are on the increase. With the development of e-government and internet technologies, the number of conflicts that need to be settled in court that rely on electronic transmissions rather than conventional paper documents will necessarily increase. The admissibility of electronic documents as evidence is therefore an important issue to consider.

Under the current law of evidence in Zambia, there is provision for the court to demand parties involved in a dispute to produce certain kinds of written documents if it believes that such documents are of material interest to the case and that the application by the party on whom the burden of proof rests is well grounded. Evidence of written documents is particularly critical in landed property dealings whereof the Statute of Frauds has proscribed that such dealings be evidenced in writing.

While the original document is what best meets the Courts purpose and requirement, this cannot always be produced as was the case in the Spaita Bobo case discussed above. Where electronic records are produced, the challenge is to establish the evidential strength of such copies. Legal status of electronic data remains a challenge now that it is
virtually replacing the use of conventional documentation (i.e., documents composed with ink on paper).

2.9.0 DELAYED REGISTRATION OF INTERESTS IN THE LAND REGISTER

It is not in dispute that computerization of the Lands and Deeds Registry has often times resulted in delayed registration of interests in the Land Register. While such delays may be acceptable in some cases, they are not in others. For instance, registration of Caveats must take precedent as failure to have the Caveat registered may cause irreparable damage. A typical scenario of this problem arises where the LIMS generates a computer failure and fails to admit registration of a particular interest while it can allow other interests to be registered. The priority of registration rule as enshrined under the Lands and Deeds Registry Act is easy to enforce where the lodgment and registration is manual as no such complications as computer errors would arise. It would therefore be rare and even unacceptable to overlook the priority of registration rule where the registers are manual. Thus e-government has caused persons with registerable interests lodged earlier in time to be adversely affected.

2.10.0 CONCLUSION

As with the disadvantages, lack of preparedness and absence of a good legal and institutional framework account for the challenges akin to policies on e-government. The next chapter therefore considers the legal
framework governing e-government in Zambia and particularly the Lands and Deeds Registry. That is to say the policy, legal and institutional structure necessary for there to be a conducive environment in which e-government can thrive. This is in order to ensure that once put in place, e-government delivers its full benefits with little difficulty.
CHAPTER THREE

REGULATORY BASIS OF E-GOVERNMENT AT THE LANDS AND DEEDS REGISTRY

3.0.0 INTRODUCTION

The previous chapter has revealed some problems surrounding e-government at the Lands and Deeds Registry, which problems might generate into an uncontrollable situation if left unattended to. It may also be true that the problems at the Lands and Deeds Registry may just be symptomatic of the regulatory framework currently in place.

This chapter, in seeking to upraise the operations at the Lands and Deeds Registry, discusses the policy legal and institutional frameworks governing e-government both at national level as well as at the Lands and Deeds Registry.

3.1.0 POLICY FORMULATION

The focal point for all matters relating to information and communication in Zambia is the Ministry of Communication and Transport. It is the mandate of this Ministry to provide leadership and guidance in the area of information and communications. Thus the wave of Information Communication Technology and e-government sweeping across the world must be incorporated into the Zambian scenario through policy direction
driven by this Ministry.

It is the role of this Ministry to put in place policy strategies and measures that would enable Zambia to fully benefit from e-government. It follows therefore that development of information infrastructure largely depends on policy initiated by this Ministry.

3.1.1 National ICT Policy

Until recently, Zambia never had an ICT policy in place. As such there has been no policy direction regarding e-government and the development of internet communications technology until November 2005 when the national ICT policy was finally approved. Whereas Zambia has been engaging herself in global, continental and regional commitments on ICTs resulting in a number of declarations and protocols, no benefits could be accrued from ICT in the absence of a national or domestic ICT policy.\(^{26}\) Thus the ICT policy has been long overdue in integrating these international protocols nationally for the effective use towards national development. The policy has clearly admitted the indispensable need for information and communications technology in today's global world and succinctly puts it thus:

"In this regard, ICT is one of the enablers to building a people-centred, inclusive and development-oriented

\(^{26}\) Supra note 4 at 2
information society; where everyone can create, access, utilise and share information and knowledge by enabling individuals, communities, corporate bodies and the nation at large to achieve full potential in achieving sustainable social and economic growth – a precondition for poverty reduction thereby improving the quality of people's lives."²⁹

The importance of an ICT policy has been spelt out by a number of issues highlighted within the policy itself including the channelling of information towards development and poverty reduction strategies³⁰. It is towards the fulfilment of this long term objective that the policy has identified e-government as a delivery tool in achieving an effective and efficient public sector. To this end, the policy states that,

"The current public sector reforms can benefit from ICTs by implementing mechanisms of responding to public, commercial and global demands for transparency, accountability and efficiency in service delivery through E-Government initiatives such as modernising and computerisation of budgeting procedures and processes, improved Financial and Human Resource Management

²⁹ Ibid at 1
³⁰ Ibid
Systems as well as innovative ways of delivering products
and services to the public through ICTs."\textsuperscript{31}

Further, the policy has sought to drive the development of legal and
institutional frameworks that have hitherto been lacking. The lack of an
ICT policy prior to the introduction of computerized system of deeds
registration may be responsible for a number of shortcomings at the
Lands and Deeds Registry. This could be true of the enactment of the
Computer Misuse and Crimes Act of 2004 especially if we proceeded on
the premise that only good policies beget good laws. With the national
ICT policy in place, we can now look forward to better laws and
institutions governing the implementation of e-government in order to
realize the benefits thereof.

With the adoption of the Policy on information and communications
technology also comes the need to speed up its implementation
particularly with respect to the use of e-government. One way in which
this has been done is the enactment of the Computer Misuse and Crimes
Act of 2004 discussed below albeit the Statute preceded the policy.

3.1.2 Draft National Land Policy

At the Ministerial level, policy regulating the use of e-government is yet to
be adopted and approved even though there is every indication to

\textsuperscript{31} Supra note 4 at 4
embrace e-government in the Draft National Land Policy Document. The Draft Policy states in part that,

"The Ministry [of lands] recognizes global advancement in information and communication technology and the availability of low cost, cheaper information management solutions that could be well adapted to the Zambian environment. This is not simply computerization, but the design and operationalisation of an information system that can generate real-time applications that use a large amount of shared data; a system that is user-oriented and is capable of serving diverse sectors and is accessible countrywide is now of high priority."

It is clear from the Draft National Land Policy that there is lamentation at the state of e-government within the Ministry of Lands. At the same time, the desire and aspiration to improve and have in place a system of e-government that generates economic benefits is evident. The policy has also clearly distinguished between e-government and mere computerization. It is also clear that various facets of the policy largely depend on the success of e-government for them to be realized. These

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32 The Republic of Zambia: Draft National Land Policy [2005], 42
33 Ibid
include the following:

- the need to decentralize the operations of the Ministry of Lands particularly the registration of interests in the Land Register,
- the need for effective land advocacy,
- the need for timely cadastre surveys,

The importance or e-government at the Ministry of Lands has therefore been clearly outlined and extended to the point of service delivery rather than purely electronic storage of information. As Munshifwa has observed, computerization by which is meant the mere storage of information electronically is not the end of land management information systems.\(^{34}\) A system of land management and information has to create and make available information relating to available tracks of land, development plans with their land uses, ownership details, available plots etc. E-government and the LIMS in particular, is supposed to aid decision making in land administration. While e-government at the Lands and Deeds Registry has achieved some of these services, a lot more is yet to be attained.

\(^{34}\) Ephraim K Munshifwa [2003], The Draft Zambian Land Policy (1999)-Comments and Proposals to the Review Committee, 9
3.2.0 LEGAL FRAMEWORK

The ICT policy has placed the responsibility of developing the legal framework for the ICT sector upon the Ministry of Communications and Transport with the support and assistance of the ministry responsible for Justice and the legislature.\textsuperscript{35} Whereas the national ICT policy clearly identifies the Communications Authority together with the Ministry of Information and Broadcasting Services and the Independent Broadcasting Authority as regulating authorities in the areas of telecommunications and broadcasting respectively\textsuperscript{36}, it is not very clear which institutions will regulate e-government in general. The assumption is that the institutions employing e-government will themselves regulate their operations. This is easy where there is a legal framework in place but difficult if not a recipe for anarchy where the legal framework is weak or non-existent.

3.2.1 The Constitution of Zambia Act

In so far as the legal framework on e-government is concerned, the starting point is the Constitution which forms the supreme law of Zambia. Part III of the Zambian Constitution provides for the protection of fundamental rights and freedoms of the individual. In particular and more relevant to e-government, Article 20 provides for the freedom of expression which is understood to include "...freedom to receive ideas and information without interference, freedom to impart and communicate

\textsuperscript{35} Supra note 4 at 9
\textsuperscript{36} ibid
ideas and information without interference whether the communication be to the public generally or to any person or class of persons, and freedom from interference with [the individuals] correspondence.\textsuperscript{37}

The implication of the constitutional provision above is that all laws and policies on e-government must ensure a balance between securing privacy of information and ensuring the freedom to receive ideas and information along with the freedom to impart and communicate the same. Thus the Computer Misuse and Crimes Act must be examined in light of the above constitutional provisions. It will be true of the Draft National Land Policy especially when legislating it into law.

3.2.2 The Lands and Deeds Registry Act\textsuperscript{38}

The principal statute governing the establishment and operations of the Lands and Deeds Registry is the Lands and Deeds Registry Act, enacted in 1914. The preamble to this Act states as follows:

"An Act to provide for the registration of documents; to provide for the issue of Provisional Certificates of Title and Certificates of Title; to provide for the transfer and transmission of registered land; and to provide for matters incidental to or

\textsuperscript{37} Article 20 of the Constitution of Zambia Act
\textsuperscript{38} Cap 185 of the laws of Zambia
Though the Lands and Deeds Registry Act has undergone a few amendments since its initial enactment, the only relevant amendment vis-à-vis e-government is Act No. 38 of 1994 which provides the basis for electronic land registration system and storage of information. With this amendment to the Lands and Deeds Registry Act, the law now states that,

"The entries in the registers may be made in a book or recorded by electronic or any other means by which the information can be safely stored and made readily available in writing."  

The amendment further provides that,

"Where a register or part of a register is kept other than in the form of a book, it shall be made available for search in a convenient written form, as a printed document or by means of an electronic device."  

It is clear from the wording of the 1994 amendments that the Act now merely recognizes the electronic storage of information in the registers.

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39 Preamble to the Lands and Deeds Registry Act, Cap 185 of the Laws of Zambia  
40 Section 16 (2) of the Lands and Deeds Registry Act Chapter 185 of the Laws of Zambia as amended by Act No. 38 of 1994  
41 Section 22 (2) of the Lands and Deeds Registry Act Chapter 185 of the Laws of Zambia as amended by Act No. 38 of 1994
and the use of electronic innovations in deeds registration while remaining mute over administrative adjustments. Unlike the indications under the Draft National Land Policy document, the 1994 amendments did not distinguish between e-government and computerization. It would appear e-government is synonymous with mere computerization. The substance of this amendment seems to have resulted from the recommendations made regarding legal reform prior to computerization which only suggested “minor amendments of law and some changes in practice”.42 At best, it was recommended that there was urgent need to amend the Lands and Deeds Registry Act to give legal base for the recording and dealing in land with the aid of computers.43 It is also evident that regard was not had to the implications of introducing the amendments in the form that they appear. It is clear that the current form in which e-government presents itself at the Lands and Deeds Registry demands better legal provisions.

3.2.3 The Computer Misuse and Crimes Act

The Computer Misuse and Crimes Act, enacted in September 2004 following incessant calls arising from unprosecuted acts of computer crime, is the first piece on legislation governing and regulating the use of information technology in Zambia.

42 Khan A. M., Paper presented by A. M. Khan the Chief Registrar of Lands and Deeds, at the National Conference on Land Policy and Legal Reforms – 19th to 20th July 1993, 6
43 Ibid at 11

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The Act aims "to prohibit any unauthorized access, use or interference with a computer; to protect the integrity of computer systems and the confidentiality, integrity and availability of data; to prevent abuse of computer systems; to facilitate the gathering and use of electronic evidence; and to provide for matters connected with or incidental to the foregoing."44

A number of issues arise from the Computer Misuse and Crimes Act especially when read together with the Lands and Deeds Registry Act and applied to the Lands and Deeds Registry. Firstly, the interpretation section has not defined certain key words such as what would amount to consent. This is particularly critical where statutory and administrative functions co-exist as is often the case at the Lands and Deeds Registry.

3.3.0 INSTITUTIONAL ARRANGEMENT

The extent of the 1994 amendments fall far short of legal reform as we would understand it today in light of e-government. Legal reform must embrace all aspects of the operations of the Lands and Deeds Registry. We must not forget that it is the Lands and Deeds Registry Act that puts in place and establishes the Registry including the critical position of the Registrar. As a matter of fact, the functions and roles of the Registrar are spelt out in the Act. Any meaningful legal reform should therefore have embraced these functions as they now relate to e-government. Alas, it

44 Preamble to The Computer Misuse and Crimes Act, 2004
was never so.

There is a clear disparity between the legal adjustments made and the institutional and administrative adjustments. Administratively, the position of Principal Systems Analyst was introduced in the institutional arrangement at the Ministry of Lands. Inadvertently or otherwise, part of the administrative functions of the Principal Systems Analyst conflicted with the statutory functions of the Registrar of Lands and Deeds. For instance, the Principal Systems Analyst seems to have taken over custody of information in the Land Register to the extent that he limits and controls access to the LIMS as it is now referred to. The implications of this antagonistic position over custody of information may not be felt unless regard is had to the administrative relationship between the Registrar and the principal Systems Analyst. We have already stated by way of implication that statutorily, there is no relationship between these two positions. Whereas the Registrar exercises statutory as well as administrative functions, the Principal System Analyst only exercises administrative functions from a totally different vantage point or angle of authority. The Principal Systems Analyst falls under the Department of Human Resources and Administration and is accountable to the Director of Human Resources and Administration. It would appear from the Ministerial establishment that the rationale for this kind of arrangement was to allow the Principal Systems Analyst the flexibility to coordinate the
entire LIMS as it related to the various users with different needs i.e. Survey, Lands and Accounts. Though this arrangement seems convenient, it may not be legally tenable especially now in light of the Computer Misuse and Crimes Act discussed above.

Though a very critical administrative convenience in the application of the Lands and Deeds Registry Act via e-governance, the position of Principal Systems Analyst lacks any statutory sanction. It is in this light that it is added that where there has been such changes, the legal provisions must also be reviewed to agree with the realities of information technology. This has not been done in the context of the Lands and Deeds Registry Act.

3.4.0 CONCLUSION

The discussion above has undertaken to reveal that the regulatory framework governing e-government at the Lands and Deeds Registry is at variance with the practical realities currently existing. While this is true especially regarding the legal and institutional frameworks, the national ICT policy has brought with it some hope. It is therefore hoped that a law be soon enacted to govern e-government. The provisions under the Lands and Deeds Registry Act must reflect the changes governing e-government while those under the Computer Misuse and Crimes Act must not be seen to stifle the right to information as constitutionally provided for.
CHAPTER FOUR
CONCLUSION AND RECOMMENDATIONS

4.0.0 INTRODUCTION

This study offers a legal perspective of the applicability of e-government at the Lands and Deeds Registry. Chapter one put into focus the inevitability of employing e-government against the back drop of globalization, good governance as well as other benefits and opportunities that come with e-government. Building on this, chapter two highlighted some challenges surrounding the use of e-government with particular reference to the Lands and Deeds Registry at the Ministry of Lands. In view of the existing and potential challenges, the third chapter undertook to examine the policy, legal, and institutional arrangement currently in place. In light of the above, this chapter draws some conclusions and then makes recommendations on the way forward. In doing so, regard is had to the global standards on e-government as against those existing in Zambia and discussed in the preceding chapters.

4.1.0 THE COMMONWEALTH MODEL LAWS ON E-GOVERNANCE

The Commonwealth Model Laws on e-government could not have come at a better time than now when many countries are embracing e-government. This is very true of developing countries that are not only new entrants in embracing e-government but also at different levels and
stages of development in terms of implementation of e-government.\textsuperscript{45} The Commonwealth Model Laws on e-governance include the following:

(i) Electronic Evidence Model Law
(ii) Electronic Transactions Model Law
(iii) Freedom of Information Model Law
(iv) Privacy Model Law
(v) Computer and Computer Related Crimes Model Law

In the case of Zambia, it is clear that only the Model Law on Computer and Computer Related Crimes has been adopted and adapted through the Computer Misuse and Crimes Act 1994. Attempts to have a similar law on Freedom of Information have received a lot of inertia against its enactment especially from the Government and given this scenario (whereby the Freedom of Information Bill is not yet law), it remains unclear whether its contents will embrace concepts of e-government as it relates to freedom of information. In a sense, the Privacy Model Law seems to have been incorporated within the Freedom of Information Bill although the two should ideally be separate pieces of legislation with two different foci.

While the National Information and Communication Technology Policy has undertaken to incorporate concepts of electronic transactions, there

\textsuperscript{45} Supra note 21 at 15
currently exists no law to govern electronic transactions. Added to this, the importance of laws typifying the Electronic Evidence Model Law and the Privacy Model Law can never be overstated.

As a matter of fact, the regulatory framework for e-government must address itself in the following major forms:

- laws directly concerned with transactions and financial arrangements;
- laws which impose liability in relation to the nature or quality of information (content) uploaded onto websites, contained in e-mails or otherwise made available through electronic means;
- rights provided to those who are the subject of information obtained or stored electronically;
- other laws regulating the management of such information;
- intellectual property rights arising out of or associated with electronic transactions, websites and e-commerce processes;
- laws which prohibit discrimination in relation to access to Internet facilities;
- criminal offences specifically associated with computers and information technology.

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4.2.0 CONCLUSION

The question whether or not to employ e-government is comfortably settled in the affirmative. It is more risky to completely forgo e-government than to face it with its myriad challenges. This is especially true of developing countries in their quest to bridge the digital divide with the West. E-government, including IT is a useful tool which can help breakdown bureaucracy, backwardness, inwardness, monopolistic practices, and inefficiencies in both the public sector and especially the private sector.47

As applied to the Lands and Deeds Registry, e-government is yet to take effect as what is in place is mere computerization of manual records into electronic registers. As such, in the absence of scanned and computerized records, the partial use of e-government will continue to yield challenges. This graduation of information storage has been recognized by Act No. 38 of 1994 which amended the Lands and Deeds Registry Act upon computerization. Admittedly, this piece of legislation (amendment) is itself an acknowledgement of the need for legal reform in light of the development taking place in the area of information and communication technology. Unfortunately, there was no policy pursuant to which the amendment was made resulting in the many inadequacies highlighted by this study including the conflict and antagonism between legal and administrative functions.

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A comparison of the manual Land Register and the electronic one will reveal disparities in content of information. A number of manual entries were omitted and therefore not transferred into the electronic register in the name of expediency. For instance, where a mortgage had been wholly discharged or a caveat duly withdrawn, such entries were deemed to have been unnecessarily overloading the electronic system and therefore for this same reason omitted. While omission of such records may be technologically justified and beneficial, there is historically and legally everything wrong. Property history in its fullest extent is very important. Devolution of title and entries in the land register are key to an effective deeds registration system. If anything, one of the duties of the Registrar is to maintain the land register and update the records. It is legally a failure when such records are conveniently omitted as was the case during the transition from manual to electronic deeds registration in Zambia.

While the introduction of e-government at the Lands and Deeds Registry was well intended, it is the implementation that has not been smooth. The inevitable consequence of this poor implementation has only yielded challenges for the Registry including issues of security of information, legal custody and disparities in levels of access. The absence of a good legal and institutional framework has asphyxiated the good intentions of
the Lands and Deeds Registry Act vis-à-vis priority of registration of documents and the need for timely registration of interests in the Land Register.

With the Computer Misuse and Crimes Act now in place, cases relating to e-government are expected to crowd the courts of law. This arises owing to the fact that the Computer Misuse and Crimes Act has criminalized acts that were previously permissible. What needs to be seriously addressed is the question of adducing or tendering electronic evidence. There is therefore need to review the Zambian law of evidence with a view to placing electronic evidence at par with manual evidence. This is increasingly becoming important as the degree to which e-government is used increases. It should be our anticipation that electronic documents will one day completely replace and obliterate manual records.

In view of the foregoing, this paper specifically concludes as follows:

- The regulatory framework governing the operations of the Lands and Deeds Registry is inadequate in its current form. The explosive growth of e-commerce and e-government has outrun the existing law and policy in Zambia.

- The Registrar of Lands and Deeds is de jure custodian of the Land
Register while the Principal Systems Analyst is de facto custodian. This is a grave anomaly.

- E-government in its current form at the Lands and Deeds registry is bound to fail as it still embraces a large component of the manual system. This explains the difficulties being faced in decentralising the operations of the Lands and Deeds Registry to provincial and district level.

4.3.0 RECOMMENDATIONS

There is need for legal provisions to support computerized registration of titles. Land laws should be amended to promote the application of advanced technology in harmony with the law on e-government. Statutes such as the Lands and Deeds Registry Act, the Lands Act and the Land Survey Act must clearly legislate all functions that are electronically carried out. These functions would include data entry, processing and retrieval. There is therefore need to fully computerize the operations of the Lands and Deeds Registry including the scanning of all manual records into digital records. This way efficiency and effective service delivery will be attained. The South African example can be emulated whereby the online electronic deeds registry is accessible from nine points in the country.
There is need for a wholistic statute on e-government with the effect of establishing the equivalent of electronic records and signatures with paper writings and manually signed signatures. Such legislation should provide that the use of electronic records meets legal writing requirements while the use of electronic signatures meets legal signing requirements. This will also entail removing barriers to e-government. A wholistic approach will also mean that government entities or institutions will not have to develop their own set of rules but depend on the common legislation. Ambiguity and uncertainty will be avoided.

In addition to a wholistic legal provision, there is need for a corresponding central coordinating point with the responsibility of setting a unified direction for the development of e-government in the nation. The central authority should be able to set targets for service delivery and set policies for operation. This is premised on the postulation that an e-government initiative devoid of a unified direction increases the risk of failures such as incompatible systems, poor interoperability, inaccurate processing and ineffective security.

The conflict between statutory functions and administrative functions should be resolved by clearly defining jurisdictional responsibilities as they relate to e-government. It is strongly recommended that in order to cure the malady at the Lands and Deeds Registry, the responsibilities of the
Principal Systems Analyst must be clearly defined within the context of the Lands and Deeds Registry Act. The Principal Systems Analyst must be brought under the oversight of the Registrar of Lands and Deeds to whom he must be answerable. It must be the Registrar to guide the operations of the Principal Systems Analyst and thus the operations of the Lands and Deeds Registry. The same can be done in the context of the Lands Act 1995 and the Land Survey Act.

As regards the balancing of privacy of information with freedom of information, government should only retain private information long enough to fulfil the official business purpose. This way, a balance will be struck between the rights of the individual and that of free-flow of information. Every opportunity to develop a Zambian constitutional and common law jurisprudence of information privacy must be exploited.

4.4.0 SUGGESTIONS FOR FURTHER STUDIES

Admittedly, the subject of information technology, e-commerce and e-government in relation to law is still relatively new especially among developing countries like Zambia. There is a lot that needs to be done in order to accrue the many benefits that e-government aims at achieving. For instance, there is need to consider the implications of electronic government and information and communication technology on the law relating to the protection of copyright, trademarks, and electronic
databases. There is also need to examine the legality of electronic commercial transactions in the wake of e-commerce.
BIBLIOGRAPHY

A. Government Documents, Papers and Reports


2. Khan A. M., Paper presented by A. M. Khan the Chief Registrar of Lands and Deeds, at the National Conference on Land Policy and Legal Reforms – 19\textsuperscript{th} to 20\textsuperscript{th} July 1993.


4. Swedesurvey, Land Information System – Zambia


B. Statutes

1. The Computer Misuse and Crimes Act, 2004
3. The Lands and Deeds Registry Act, CAP 185 of the Laws of Zambia

C. Cases


D. Internet Sources

1. Bonham G. M., Seifert J. W. and Thorson S. [2001], The Transformational Potential of e-Government -
   http://www.maxwell.syr.edu/maxpages/faculty/gmbonham/ecpr.htm


3. Duffy D., “Q&A: Balancing the Role of EGovernment,” CNN, 13 November 2000,


