DEPARTMENT OF SOCIAL DEVELOPMENT
INFORMATION TECHNOLOGY PLAN

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Toll-Free Number : 080-0032-364

I.   FOREWORD

The IT Plan (2016 – 2020) builds on the gains made in the previous one and comes at a time when the Department is faced with increased service delivery demands and a shrinking budget. This enforces re-engineering and re-defining of our destiny. The plan outlines a five year roadmap that will assist the Department in achieving its desired goals in complex and difficult economic times

This IT Plan therefore acknowledges the importance of a functioning and responsive Department that delivers its mandate of serving the poor and vulnerable members of society and availing resources to better their lives through care, protection, capacity building and sustainable development. The Departmental Leadership and Management are committed to working closely with the Chief Information Office to ensure that business needs drive the application of technology. From the year 1997 the CIO has built a robust technology environment of networks, infrastructures and systems and pursuing a vast array of large projects. However the Department has since experienced tremendous growth which demands more connectivity as well as automation of both staff and business processes. Therefore, the IT Plan needed to be reviewed in the context of the Departmental priorities, the new leadership vision, and the significant IT investments that have already occurred. An assessment of both the business and IT environment has been completed and the IT Plan represents a partnership between the business functions of Department and the technology activities that deliver on those business priorities. In addition to this, the Department of Social Development has been given the task of facilitating the social protection imperatives outlined in the National Development Plan by coordinating *Outcome 13: an inclusive and responsive social protection system*. The Department has mandated the CIO unit in ensuring that this is achieved by leading the business in the analysis, re-engineering and streamlining of core and support business processes and developing robust solutions that meet the citizen's expectations. The Department is also in the process of implementing a Family Based Strategy where ICT will play a critical role in ensuring that systems are in place to assist the Department to produce meaningful information. This will assist in providing the correct services to the right beneficiaries at the right time and within the cost and quality standards set by the Norms and Standards. Building on our proud history, excellence in providing innovative solutions remains the nucleus of our strategy and is essential to enhancing our stature and reputation provincially and nationally. In order to achieve our desired goals in this plan, we have to work in tandem with various internal and external stakeholders to provide the capacity required for us to deliver on our promise to the citizens.

Thank you

_____
Mr. S. Khanyile
Superintendent General

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II. ACKNOWLEDGEMENT

The development of Information Technology (IT) Plan for this Department was a tedious and very inclusive exercise that involved many stakeholders internally and externally. The Department used parts of the GWEA methodology and approach tailored for our environment in the development of our IT Plan this time in comparison with our previous plans. The Department continued to face challenges in following the available industry standard framework in the development of its plan as these frameworks were incompatible to meet the requirements of a draft guideline that was published by the Department of Public Service and Administration Department (DPSA).

Hence, the framework and the methodology used to develop this plan is the sole intellectual property of this Department.

We would like to take this opportunity to express our appreciation to everyone who supported us throughout the development of our IT Plan project. We are grateful for their inspiring guidance, leadership, hard work, invaluably constructive criticism and friendly advice during the project work. We are sincerely thankful to everyone involved for sharing their honest expertise, knowledge, time and illuminating views on a number of issues related to the project.

We would like to express our heartfelt gratitude for the contribution, support and sound leadership that we have received from our Superintendent General. We thank the members of the Top Management and the staff in the Department for availing themselves and enduring the rigorous interview sessions, completing questionnaires and giving input in effort to align ICT with the Departmental objectives.

We express our warm thanks to Ms. Ngcingwane -Chief Information Officer at National Department of Social Development and Ms. T. Sibuyi – Project Manager for a sector wide IT Plan who contributed immensely with data gathering in the form of interviews, questionnaires and situational analysis.

Our appreciation also goes to the crucial partners of National Department of Social development, Mr Mark Brouwer and his team from Entsika Consulting Services for their contribution, support and professional guidance in the development of our IT Plan. Lastly we thank everyone who contributed towards the development of this document and thereby ensuring that this project was indeed success.

Thank you,

Author
Chief Information Officer

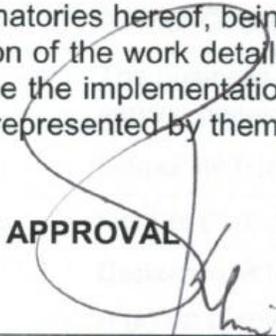Building a Caring Society. Together.

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III. APPROVAL

The signatories hereof, being duly authorised thereto, by their signatures hereto authorise the execution of the work detailed herein, or confirm their acceptance of the contents hereof and authorise the implementation/adoption thereof, as the case may be, for and on behalf of the parties represented by them.

ECDSD APPROVAL

_____   18/03/2016
ECDSD: Superintendent General: S Khanyile   Date

ECDSD RECOMMENDED

_____   10/3/16.
ECDSD: Chief Information Officer: P M Cheriyan   Date
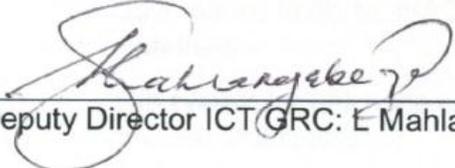
_____   10/03/2016
ECDSD: Deputy Director ICT GRC: L Mahlangabeza   Date

IV. TERMS AND DEFINITIONS

AG	Auditor-General of South Africa
Business	The business of the department refers to the department's service delivery and internal support activities
CGICTPF	Corporate Governance of ICT Policy Framework
COBIT®	Control Objectives for Information Technology
Corporate	**Department level:** A group of related components that enables a department to achieve its strategic mandate For the purpose of this IT Plan, Corporate means the same as Enterprise
Corporate Governance	"...*The set of responsibilities and practices exercised by the board and Executive Management with the goal of providing strategic direction, ensuring that objectives are achieved, ascertaining that risks are managed appropriately and verifying that the enterprise's resources are used responsibly*." (IT Governance Institute: ISACA [CGEIT] Glossary: 5 as amended)
Corporate Governance of ICT	The system by which the current and future use of ICT is directed and controlled. Corporate governance of ICT involves evaluating and directing the use of ICT to support the organisation, and monitoring this use to achieve plans. It includes the strategy and policies for using ICT within an organisation. (ISO/IEC 38500: 2008: 3)
Corporate Governance of ICT Policy	The departmental Corporate Governance of ICT Policy that implements the objectives, principles and practices of the Framework.
Customer	Internal Users
Department	A provincial department or a provincial government component (Public Service Act 103 of 1994, as amended) (PSA)
DPSA	Department of Public Service and Administration
Executive Authority	In relation to – (a) a provincial department or a provincial government component within an Executive Council portfolio, means the member of the Executive Council responsible for such portfolio; (PSA 103 of 1994, as amended)
Executive Management	The Executive Management of the Department and could include the Superintendent General, Deputy Directors-General (DDGs) /Executive Management of the Department. This normally constitutes the Executive Committee of the Department.

GICT	Governance of ICT
GITO	Government Information Technology Officer (Cabinet Memorandum 38(a) of 2000)
Governance of ICT	The effective and efficient management of IT resources to facilitate the achievement of company strategic objectives. (King III Code: 2009: 52)
GWEA	Government-wide Enterprise Architecture
SG	Superintendent General
ICT	Information and Communications Technology, also referred to as IT
ICT Plan	The ICT Strategic Plan informed by the departmental Strategic Plan that articulate the requirements of business service delivery enablement by the ICT function
ICT Operational Plan	The ICT Annual Performance Plan that articulates the business enablement by ICT
IT	Information Technology , also referred to as ICT
M&E	Monitoring and Evaluation
MPAT	Minister of Public Service and Administration
MTEF	Medium Term Expenditure Framework
MSP	Master Systems Plan
PSR	Public Service Regulations of 2001, as amended
Responsible	Refers to the person who must ensure that activities are completed successfully
Risk Appetite	The amount of residual risk that the Department is willing to accept. (PSRMF 2010:15)
Risk Management	A systematic and formalised process to identify, assess, manage and monitor risks. (PSRMF 2010:16)
Road Map	Blue print guide for the implementation of the IT Plan
RACI	Responsible, Accountable, Consulted and Informed

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V. EXECUTIVE SUMMARY

The Department of Social Development has recognised Information Communication Technology (ICT) as a pivotal enabler to achieve its strategic objectives. The Department has developed a comprehensive IT Plan to align its Information Systems and Technology Infrastructure with the strategic direction of the Department.

The IT plan is a review of the 2012 MSP and will accommodate; changes in business, technology environment and alignment of the ICT strategies with Departmental strategies.

The IT Plan was developed by analyzing the Departmental strategic goals and objectives and identifying ICT strategic priorities to support the Department in realizing its objectives. The office of the CIO has identified business process automation, user automation, information management service and corporate governance of ICT as its strategic priorities. The ICT strategic priorities will support National Outcome 12, Provincial priorities 5 & 7 and the Departmental priority for business process improvement and automation:

The successful automation of business processes is dependent on well-defined business processes and standard operating procedures. In 2015 the Department embarked on a Business Process Mapping (BPM) project which will see all critical core and support business processes documented, streamlined, approved and implemented. The Department has identified 69 core business and 17 support service business process areas where business processes needs to be identified and mapped. This project will ensure that business applications development is done in a more controlled manner and approved by the business process owner.

The Department currently utilizes 3 information management systems to automate various core and support service business processes, namely PERSAL, BAS and SDIMS. The Department has developed SDIMS in-house to automate core business processes and support service processes not available in the transversal systems. SDIMS currently automates 19 business processes with plans to develop additional modules that will automate an additional 28 processes.

The National Department of Social Development has embarked on a project to develop a sector wide IMST strategy and as part of this project an AS-IS analysis was performed on the current ICT infrastructure and systems of the Department. The findings and recommendations from this report was used to identify projects that will assist in achieving the ICT priorities.

The Departments current ICT infrastructure requires significant upgrades to accommodate the growing number of users and business process that are being automated. The report has identified the following as key areas of attention in order to provide stable, robust and scalable ICT infrastructure:
- Significant bandwidth upgrades especially in rural areas to 20-50MBs.
- Review and implementation of the cabling standards.
- Standardisation of ICT equipment and implementation of replacement cycles.
- Standardisation of operating systems.

- Adopt a best practice IT service management based on ITIL to achieve a business-driven management of ICT services.
- Rationalise the implementation of data centres, business continuity and disaster recovery solutions.

The product of detailed study on the strategic business articulation, business environmental analysis and current ICT environmental analysis has resulted in listing of 60 initiatives that should be taken into account to meet the business requirement of the Department. The IT plan has funded projects as well as unfunded projects during the five-year term of 2016-2020. The inclusion of unfunded projects in the IT Plan is with an intention of bidding for additional funding from the Departmental vote through re-prioritization. This approach is adopted to give flexibility to the IT Plan to accommodate additional funding during its life span.

The Office of the CIO is currently allocated a budget if R 69,167,875 to achieve its strategic priorities. The available funding has resulted in a functional IT environment; however additional investment in ICT is required to support the Department in achieving its strategic objectives. The sourcing and retention of skilled resources for business process automation, operational support and functional support remains a challenge. Additional resources are required in order for the Department to achieve its target of automating 47 business process by 2020.

The successful implementation of the IT Plan will result in delivering of service in a more efficient and effective manner.

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CHAPTER 1: STRATEGIC OVERVIEW

1. BACKGROUND

The Department of Social Development has recognised Information Communication Technology (ICT) as a pivotal enabler to achieve its strategic objectives. Hence the department has embarked on a holistic approach to align its information systems and technology infrastructure with the strategic business direction, therefore this necessitates the review of the previously developed IT Plan. The primary objective is to ensure the alignment of the Department of Social Development strategic objectives to its IT Plan. The methodology used addresses:

a)   articulating The Department of Social Development business strategy;
b)   interpreting key information drivers and information systems;
c)   conducting a high-level assessment of the current ICT environment
d)   developing the desired roadmap and budgetary requirements as recommendations for an ideal future state of the ICT environment

The previous IT Plan was developed for the department by SITA during 2012; subsequently a need has arisen to renew the ICT due to the following:

a)   Strategic direction required for ICT;
b)   The time elapsed since the IT Plan was developed to-date;
c)   Changes in the business and technology environment;

2. Business Strategy Articulation

The purpose of the business strategy articulation phase is to solicit inputs from a business perspective to guide in formulating the IT Plan or ICT strategy. It is worth noting that the terms IT Plan and ICT Strategy are used interchangeably through this document. The business strategy articulation encapsulates the business context and business strategic direction.

2.1   Business Strategic overview

The Department has changed its name from Department of Social Development & Special Programme to 'Department of Social Development', following the Premier's pronouncement of the relocation of the Special Programs Coordination function to the Office of the Premier as of June 2014.

During the development of the 5 year 2015/16 – 2019/20 Strategic Plan, the Department through a consultative process has reviewed the vision, mission, values, goals and objectives in line with the National Development Plan (NDP) Vision 2030.

2.1.1 Vision

A caring society for the protection and development of the poor and vulnerable towards a sustainable society
o Caring Society through a collective approach or unity with stakeholders
o Poor & Vulnerable by building trust, hope and assurance
o Sustainable society through continuous improvement & sustainability

2.1.2 Mission

To transform our society by building conscious and capable citizens through the provision of integrated social development services with families at the core of social change.
The key concepts of the mission are:

- **Transformation** is about changing the landscape of South Africa through legislative reform; programmes which must radically change material conditions of our people and entrenching of human rights.

- **Consciousness** building has both an internal organisation focus on building activist bureaucrats committed to the service of South African citizens. The outward focus is on creating a space for progressive awareness, critical engagement and participation of citizens in their development.

- **Capabilities** are about enhancing social, human, financial, physical and natural assets of citizens so as to enjoy freedoms espouses in the Constitution of South Africa.

- **Integrated service** is about ensuring that our provision of welfare services, community development and social security respond to lifecycle challenges that our people face. This requires budgets that enforce integration; structures that enforce integration; programmes that enforce integration, systems and processes that enforce integration.

2.1.3 Business strategic goals

The department has revised its strategic goals for the next five years and these are in line with the new budget structure.

o To provide quality strategic leadership, management and support to the department and sector;
o To build a caring society through integrated developmental social welfare services to the poor and vulnerable;
o To enhance stability in families and children in need of care and protection;
o To mitigate incidents of gender based violence, substance abuse and crime;
o To progressively build sustainable and self-reliant communities with special focus to all the poor and vulnerable groups of the province.

2.1.4 Business Strategic objectives

o To provide continuous political stewardship, leadership and guidance in the Department and to the sector in the delivery of developmental social services by March 2020.
o To provide integrated strategic direction and support to achieve good governance at all times
o To provide eight integrated developmental social welfare services to the relevant targeted people infected and affected with HIV and AIDS and people with special needs by March 2020;
o To provide three family preservation programmes to vulnerable families by March 2020.
o To improve access to seven developmental child care and protection services by March 2020.
o To provide integrated developmental social crime prevention, victim support and anti-substance abuse services to the most vulnerable members of communities by March 2020
o To provide community development services targeting poor communities and vulnerable groups particularly youth and women

2.2 ICT Strategic Overview

2.2.1 ICT Strategic Objective

To provide integrated strategic direction and support to achieve good governance at all times.

2.2.2 ICT Mandate

The provision of IT Pan services to enable the Department of Social Development as the strategic partner to fulfil its obligations within parameters as defined by Public Service Act and its regulations in respect to ICT

2.2.3 Legislative Mandates

• Public Service Act (Act 1994 as amended by Act 30 of 2007)
• Public Service Regulation 2003
• Electronic Communication Transaction Act (Act 25 of 2002)
• State Information Technology Act (Act 88 of 1998 as amended by Act 38 of 2002)
• Promotion of Access to Information Act (Act 2 of 2000)

2.2.4 Policy Mandates

Table 1: Policy Mandates

Policy	Brief Description
DPSA Corporate Governance of ICT Framework	Guideline for Implementation of CGICT in the government departments.
ICT Governance Charter	Define the Governance structures and bodies that govern ICT in the department.
Minimum Information Security Standards (MISS) of National Intelligence Agency	Contain minimum security standard that government should adhere to.
Information Security Policies	Establish an Information Security Function with appropriate roles within the Department and maintain appropriate protection of information assets.
IT Policies	Establish an Information and communication Technology Function with appropriate roles within the Department and maintain appropriate protection of information assets.
ICT Governance Framework	The implementation of CGICT in the department.
IT Management Framework	The document establishes the Department of Social Development policy for the management of information technology and communication.
ICT Portfolio Management Framework	It defines the processes that are performed throughout the life of a Project to ensure the Project Management Policy is adhered to.

2.2.5 ICT Vision

Eastern Cape Department of Social Development, striving towards the enhancement of service delivery through creativity and innovation.

2.2.6 ICT Mission

a) To support the Eastern Cape Department of Social Development in achieving its strategic objectives through the efficient application of Information Management Systems, Technology and infrastructure, by implementing near complete business automation by 2020.

b) Overall Implementation and monitoring of IT Plan.

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2.2.7 ICT Values

All employees of the Department are expected to subscribe to the Code of Conduct for Public Servants and the Batho Pele Principles.
The following Department-specific core values apply in the ICT Section:

- **Integrity -** Our actions and decisions must be in the interest of the department and must be beyond reproach
- **Empowerment** - We aim to empower our employees and customers by building on existing skills, knowledge and experience and by creating an environment conducive to life-long learning.
- **Accountability** - Understanding the impact of our work and taking responsibility for our actions and decisions

2.2.8 ICT Strategic priorities

The departments of Social Development priorities for 2016-2020 are:
- Business process automation
- User automation
- Information Management Services
- Corporate Governance of ICT

Table 2: ICT Strategic Priorities

ICT Strategic Priorities	Role of Directorates
Priority 1: Business process automation	Ensure the reengineering and automation of business processes
Priority 2: User automation	Expand the number of connection and automation of users
Priority 3: Information Management Services	Provide Management Information to business through data integration and business intelligence services
Priority 4: ICT Governance	Ensure continuous improvement of ICT Governance maturity

2.2.9 ICT Strategic Alignment

Diagram 1: ICT Strategic Alignment

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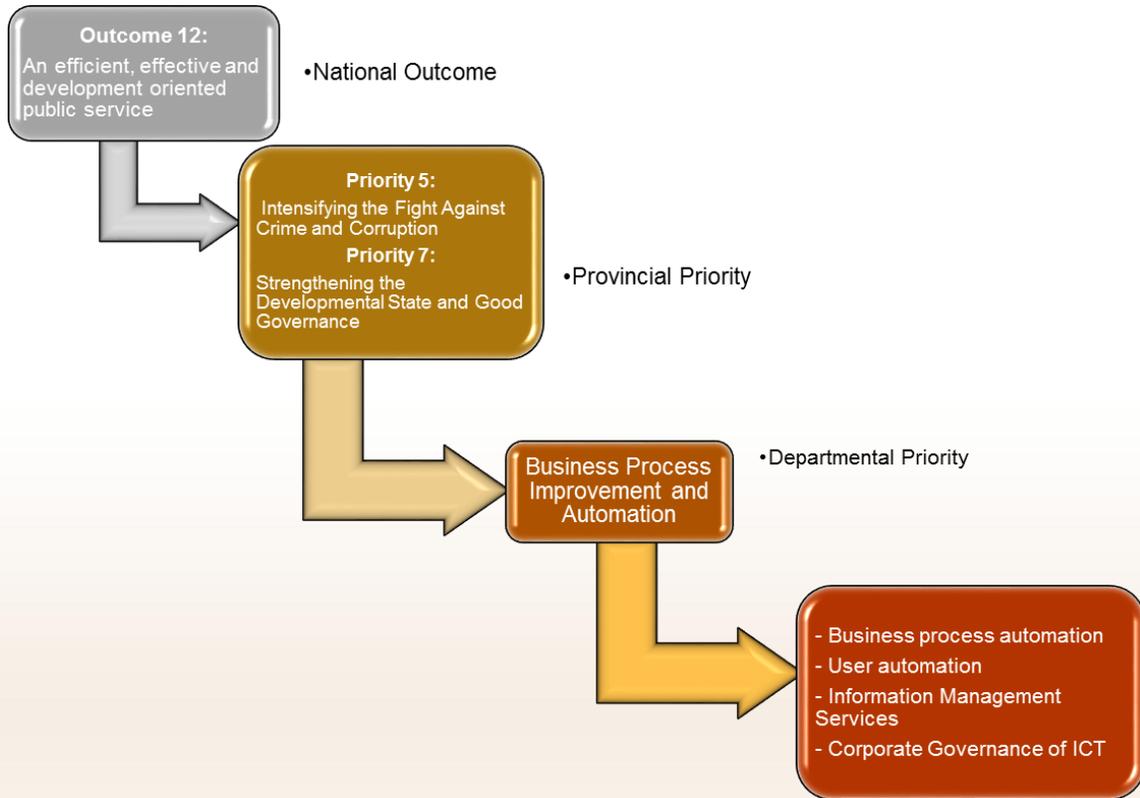
CHAPTER 2: ANALYSIS OF BUSINESS

1.   Background

Information & Communication Technology (ICT) remains a huge challenge and evidently affects service delivery, particularly in the most remote areas of the province. Eastern Cape Province is mostly dominated by rural towns and few farm and urban town; when Telecommunications institutions are laying out their infrastructure, they concentrate in urban areas where there are industrial firms and businesses and neglect the poor and rural areas. Areas that are often affected by this are the areas where levels of poverty are high and Social Development services are needed most.

Furthermore the departmental service delivery model is currently outdated and must be reviewed along with the service charter and service standards. The department must ensure that they measure service quality not only from the internal perspective but also from the perspective of the service beneficiaries.

The department must prioritize the adoption and implementation of the Operations Management Framework. This will enable improved and optimized operations which will assist in rendering services in a more effective and efficient manner leading to improve service beneficiary satisfaction and continuous improvement. The NPO Management processes need to be improved by introducing more controls, eliminating waste in the registration process, empowering Social Services Practitioners to train NPOs and automation of submission of claims for payment.

Critical services must be mapped and each activity in the value chain of each service must be identified and documented. This will assist the department in removing unnecessary activities that are causing bottlenecks and delays in the delivery of services. Through this process, the department will be able to determine the turnaround time, the number and type of human resources and skills required for effective delivery of the services as well as the cost per service.

Other challenges include:
o   Understaffing
o   ICT Infrastructure (Network, telecommunications, etc.)
o   ICT Equipment (computers, scanners etc.)
o   Centralisation or decentralization of functions
o   Accessibility of services to the people
o   Late payment of NPOs
o   ECD Registration very slow
o   Non-responsiveness of Supply Chain Management to the demanding nature of our services

The aim of the IT plan is to respond to these and other challenges while striving for more effective and efficient operations towards improved service delivery levels.

2.   Business Environmental Analysis

Key to the development of the IT Plan is the business environmental analysis which is used as the primary driver for ICT initiatives. The purpose of this phase is to articulate the business mandate and strategy which can be used to identify the alignment opportunities between ICT and business. A comprehensive understanding of business strategic goals and objectives will better inform the development of IT planning, execution and operational activities.

Since 2007 the department has introduced technology to enhance these operations for the benefit of the clients and the effectiveness and efficiency of the business operations. In 2015 the department embarked on a Business Process Management (BPM) project which will see all critical core and support business processes documented, streamlined, approved and implemented. Business Process Mapping will then be a critical step towards improving processes via automation. This will ensure that the business applications development is done in a more controlled manner and any enhancements will be submitted to and approved by the business process owner.

2.1. Core Business of the Department

The Department of Social development in the Eastern Cape has been mandated to render the following core services:
- Social Welfare Services
- Children and Families
- Restorative Services
- Developmental Services

Below are the core business services, functions and high level processes provided by the department.

Table 3: Detailed Core Business Environmental Analysis

Programme	Sub-Programme/Service	Business Process Areas
Social Welfare Services	Services to older persons	Placement and care services to age in old age homes or frail care
		Render community based service center programmes
		Registration of care givers for older persons in line with Regulations of Older Persons Act No. 13 of 2006.
		Assessment and registration of community based care and support services.
		Other community based services for the care and support for older persons.

	Services to persons with disabilities	Render residential care facilities to persons with disabilities
		Render community based skill development services through protective workshops to persons with disabilities.
		Community based support and rehabilitation services to persons with disabilities.
		Community based EPWP work opportunities created for persons with disabilities.
	Services for HIV/AIDs	Render Home Community Based Care services (HCBC) to people infected and affected with HIV/AIDS including EPWP work opportunities created in HCBC programme.
		Community based psychosocial support services to people infected and affected with HIV/AIDS.
		Other community based programmes on HIV/AIDS
	Social Relief	Render Social Relief of Distress programme.
Children and Families	Care and support services to families.	Rendering of Community based Family Preservation Programme.
		Rendering of family re-unification services
		Render parenting programme for families.
	Child care and protection services	Maintaining a register for all orphans and vulnerable.
		Psycho-social services to orphans and vulnerable
		Maintaining an updated register for all child abuse cases - child protection register
		Temporary safe placement of children in need of care- Place of safety
		Maintaining an updated register for foster care services and render foster care placement, supervision and reconstruction services.
		Render adoption services
		Community based prevention and early interventions programmes
	ECD and Partial Care	Registration of ECD programmes in terms of Norms and standard.
		Maintain updated register for partially registered ECD centers.

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		Render ECD programmes to children between 0-5 years and creation of Job opportunities through EPWP programme.
		Render partial care services.
	Child and Youth care centers	Render child and you care center services to children in need of care and protection.
	Community based care services for children	Render drop-in center programme.
		Render services through Isibindi-Model and number of work opportunities created through EPWP
Restorative Services	Crime prevention and support services	Assessment of children in conflict with law.
		Functioning of presentence evaluation committee
		Maintain updated register for children in conflict with law.
		Rendering probation services to children in conflict with law
		Render secure care services to children awaiting trial.
		Render secure care services to children who are sentenced
		Render diversion programme services to children in conflict with law
		Render community based social crime prevention programmes
	Victim empowerment programme	Render VEP programme through VEP sits and work opportunities created through EPWP
		Psycho-social support programme to victims of violence.
		Services to victims of human trafficking
		Community based prevention programmes.
	Substance abuse prevention and rehabilitation	Render community based drug prevention programme targeting children under 18 years(Ke Moja Strategy)
		Render community based drug prevention programme to people 19 years and above
		Render in-patient treatment services
		Render out-patient treatment services.
		Render TADA programme as community based drug prevention programme and number of work opportunities created through EPWP.

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Development and Research	Community mobilisation	Render community mobilization programmes to targeted communities
		Render community organization activities for preparing the communities for development.
	Institutional capacity building and support for NPOs	Render NPO capacity development programmes.
		Render NPO registration service in National NPO register.
		Render training to corporative.
		Initiating the formation of NPOs.
	Poverty alleviation and sustainable livelihoods	Render poverty reduction initiatives/project/programmes
		Implement ECDSD food security programmes (E.g. Food Gardens)
		Render center based feeding programme (CNDC).
	Community based research and planning	Household and Community profiling services
	Youth Development	Render support services to youth development structures.
		Render National Youth Service Programme
		Render youth skills development programme.
		Render youth mobilization programmes
		Render youth entrepreneurship development programme
	Women development	Render women empowerment programmes.
		Render women community mobilization programme.
		Render women livelihood initiatives and economic empowerment programmes.
	Population policy promotion	Render population capacity development programme.
		Render population advocacy, information, education and communication activities.
		Production of population policy monitoring reports.
		Conducting of research projects on identified areas.
		Production of demographic profiles.

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2.2 Support Services of the Department

Support Services Business services, functions and high level processes

The department has been mandated to render the following support services:
• Office of the MEC
• Corporate Management Services
• District Management

Table 5: Detailed Support Business Environmental Analysis

Programme	Sub-Programme/Service	Business Process Areas
Administration	Office of the MEC	Provides political and legislative interface between government, civil society and all other relevant stakeholders
		Provides Strategic direction
	Corporate Management Services	Provides for the strategic direction and overall management and administration of the Department.
		Manage Financial services
		Manage Supply Chain and Asset Management services
		Manage Human Resource services
		Develop Human Resource services
		Manage Legal services
		Manage ICT services
		Manage Communication and Customer Care services
		Manage Strategic Reports services
		Manage Risk and Security Services
		Provide Internal Audits services
		Provides general Administration services
	District Management	Manage Office of Head of District and Co-ordination of district programmes
		Play a coordinating role decentralization by rendering support function to all the districts

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		Render management and administrative services at District level including the development of training and initiatives for the districts

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CHAPTER 3: CURRENT ICT ASSESSMENT

1.   Introduction

The Department of Social Development, Eastern Cape was separated from the Department of Health, Eastern Cape in 1997 with very limited use and capacity of ICT. The technology use for business automation was limited only for payroll management, budget and expenditure management and financial accounting services. Only four offices including the head office had ICT infrastructure and network connectivity with less than 150 workstations. ICT was a centralized shared service in the province and Office of the Premier was fully responsible for ICT sourcing for Government Departments. Since 2002, the Department made tremendous growth in ICT in the Department by investing in; establishing LAN infrastructure, connecting offices in WAN; putting adequate network infrastructure; disaster recovery and business continuity infrastructure, ICT security, business systems projects, establishing workstations and training and support. Today Department of Social Development has the most ICT Capacity in the Eastern Cape among all other Government Departments. Though ICT is fast growing in this Department, it has to go a long journey to reach to the level of an international standard that supports all business of this Department.

2.   ICT Assessment Approach

The approach was to determine the "as is" state according to the foreknowledge of the environment and through business interviews to recommend future investments that can be used in addressing ICT shortcomings and increase productivity and service delivery.

The department has realized the pivotal role ICT has to play in order to achieve its mandate and has made significant investment on ICT. However, it must be noted that there are yet a huge number of business processes that are manual. This assessment provides the starting point for determining the gap between the current ICT environment and the future (ideal) ICT environment.

The proposed initiatives during this document guide the Department in a strategic direction in terms of ICT investments in order to unlock organizational opportunities (service delivery), improve organizational agility and flexibility to react quickly to senior management decisions based on the public demands that are put on the Department.

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3. Current Business Automation Assessment

The Department of Social Development currently has an ICT support centre located at the Head Office. This is the centre that was started in 2004 by the CIO's office using SITA resources. The Support centre was established to focus on business process automation with the aim of transforming and improving internal operational efficiencies and also transform external access to the public services through the use of modern technologies.

Later in 2011/12 financial year this model was changed to assist the Department in implementing cost containment measures through the insourcing non mandatory services based on the cost benefit analysis that was conducted by CIO's office in 2011/12 financial year. The centre was established to perform the following functions:
1) Business Process Mapping and Business systems requirements development
2) Business Process automation and Maintenance.
3) Training Departmental employees on Computer literacy, on Business Systems and also Systems Operational Functional support

The Support centre is current using Systems Development Life Cycle (SDLC) methodology in developing and maintaining the Departmental business application systems.

This approach is working well in terms of sustainability, continuity, stability and cost effectiveness of rendering business systems support in the Department. It is regarded as the best approach by National Department of Social Development and even our Provincial Departments such as Provincial Treasury they have started the process of partnering with us.

Although this approach is working well for the Department there were challenges that we have gone through and some of them we are still addressing them. Amongst these challenges there are those that are within our control and there are those that are business challenges that need to be addressed through the improvement of the Departmental corporate governance framework. The diagram below depicts the current picture and significant strides the department has made and yet to make to enable business process.

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Diagram: 2 Business Automation Outlook

SDIMS

P2P

Procurement (Goods &Services)	Asset Management	Contract Management
Procurement (Projects & NGO)	Asset Register	Order Management
Supplier Management	Memo	Requisition
Audit Certificate	Budget Management	Goods Receive Voucher
Invoice Management	Payment Certificate	SCM and Finance Delegation
Expenditure Management	Price Index	Journal Management
Cash Management	Debt Management	Inventory Management
Fleet Management	Leased Assets	Telephone Management
Procurement Plans	SCM Catalogue	BID Management

HRMS

Personnel Administration	Attendance Management	Leave Management
Organisational Management	Performance Management	Claims
Career Management	Education and Training Management	Employee Wellness
Labour Relations	Employee Movement	Termination of Services
Human Resource Planning	Recruitment Management	Records Management

COMMUNITY BASE SERVICES

Case Tracking Register (CTR)	Child Protection Register(CPR)	Foster Care Register(FCR)
NGO Registry	Probation case management	NPO Registration, Accreditation
NGO Payments	Child Adoptions Administration	NPO Registration, Accreditation
Secure Care Facilities Management	Community Development Projects	Facilities
Accreditation of diversions services providers		

Transversal Systems

BAS

Budget management (changes and execution)	Cash and Banking
Expenditure & Liabilities	Accounts receivables
General Ledger Management	Revenue management)

PERSAL

Employee management
Termination of services
Remuneration management

LEGEND

Automated Process	Old Technology
Manual Process	

Below is the table that depicts the high level strategic mapping between business and ICT enablement objectives.

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Table 5: High-Level Business Process Automation

Programme	Sub-Program	Service	High – Level Business Process	System / Application Name
Programme 1: Administration	Corporate Management services	Human Resources Services	1. The rendering of staff provisioning and conditions of service 2. The rendering of Human Resource policy and planning services 3. The management of personnel registry 4. The rendering of office support services	PERSAL and SDIMS (HRMS)
Chief Financial Officer	Finance	Finance	1.Financial Budgeting and Revenue 2. Financial Accounting services	BAS and SDIMS (P2P)
Chief Financial Officer	Supply Chain	Supply Chain	1.Contract Management Centre 2. Supply Chain Management	SDIMS
Programme 2: Social Welfare Services	HIV and AIDS	Services to HIV and AIDS Programmes	1.Design and implement integrated community based care programmes and services aimed at mitigating the social and economic impact of HIV and AIDS 2.Providing intervention programmes and services, prevention and psychosocial support programmes 3.Financial and capacity building of funded organisations	CBIMS
Programme 3: Children and Families	Child and Youth Care	Child Care and Protection Services	1.Design and implement integrated programmes and services (interventions, evidence based management and information support, human resource development and capacity building) that provide for the development, care and protection of the rights of children	CPR
Programme 3: Children and Families	Child and Youth Care	ECD and Partial Care	1.Provide comprehensive early childhood development services (Provincial Strategy and profile for ECD and partial care) 2.Provision of services ECD and partial care, 3. Norms and Standards compliance. 4. Registration of ECD and partial care programmes and services 5.Assignment of functions to municipalities and funding of ECD sites)	ECD register

Programme	Sub-Program	Service	High – Level Business Process	System / Application Name
Programme 3: Children and Families	Child and Youth Care	Child and Youth Care Centres	1.Provide alternative care and support to vulnerable children through Governance (Registration, funding, monitoring and evaluation of CYCC, Drop-in-Centres) 2.Capacity building (training of all relevant stakeholders on the Children's Act)	CYCA
Programme 4: Restorative Services	Families, Women and Victim Empowerment	Victim Empowerment	1. Design and implement integrated programmes and services (interventions, financial and management support, policy and legislation and governance) 2. Provide support, care and empower victims of violence and crime in particular women and children	VEP&OPR
Programme 5: Research and Development	Community Services	Institutional Capability Building and Support for NPO's	1. To support NPO registration and compliance monitoring. 2. NPO stakeholder liaison and communication, 3. Provide institutional capacity building services 4. Manage NPO funding and monitoring and create a conducive environment for all NPO to flourish	NPO register
Programme 5: Research and Development	Community Services	Poverty Alleviation and Sustainable Livelihoods Services	1. To provide Programmes and Services through interventions such as Food For All (ECDSD feeding programmes included e.g. food parcels; soup kitchens; Drop-in-Centres etc. ;) 2. Social Cooperatives; Income Generating Projects and Community Food Security	CDP toolkit Household profiling tool Community development operations manual
Programme 5: Research and Development	Community Services	Community Based Research and Planning Services	1. To provide communities an opportunity to learn about the life and conditions of their locality through household and community profiling, and 2. Uplift the challenges and concerns facing their communities, as well as their strengths and assets to be leveraged to address their challenges	NISIS
Programme 5: Research and Development	Community Services	Population Policy Promotion	1. To promote the implementation of the Population Policy within all spheres of government and civil society through population research, advocacy, capacity building and by monitoring and evaluating the implementation of the policy	Population Development register

4. Existing Systems

Table:6 Existing Systems

Name of IT System(s)	Purpose or Benefit	Responsible Programme/Branch (System Owner)	Number of Users with Login credentials
SDIMS (HRMS) Persal	Provision of Leave Management, Personnel Administration, Staff provisioning and condition of service	GM: Corporate Management services	
SDIMS (P2P) BAS	Finance delegation, Audit certificate, Expenditure management, Payment Certificate, Invoice Management, Budgeting and Revenue, Financial Accounting services	Chief Financial Office	
SDIMS (P2P)	Order management, Supplier Management, Requisition, Goods receive voucher, Payment voucher, SCM Delegation, Memo	GM: SCM	
SDIMS	NGO & Projects Payments, Case Tracking Register (CTR), Child Protection Register(CPR), Foster Care Register(FCR),	GM: Social Services GM: Research and Dev.	

5. Current Infrastructure Assessment

ICT infrastructure includes all the hardware, software, networks, and data center facilities that provide the capabilities to host the automated business and management application systems of an organisation. These capabilities translate into a range of ICT services that enable and support the information, communication and business enablement requirements of an organisation. In specific terms, hardware components include servers, switches, routers, storages, and end user devices, such as PCs, laptops, printers, and scanners.

ICT Infrastructure remains a challenge within the department with some service offices in the rural areas lacking connectivity to the ICT Infrastructure, telecommunications and access to systems and applications. This leads to gaps in the adoption and implementation of automated business processes.

The IT Plan aims to address the associated issues, challenges and risks that constrain the effective functionality and use of the provincial ICT infrastructure.

4.1 Data center

The Department is entering a phase where evermore processes are re-engineered and automated to improve efficiency. These additional systems are creating additional data, requiring additional processing and are creating a dependency for reliable, adaptable and scalable data centers.

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The easiest and most cost effective solution would be to host our servers in the cloud and benefit from all the advantages of Hardware as a Service (HaaS). There are several key requirements to use HaaS

that the Department cannot comply with namely adequate bandwidth, data sovereignty and provider lock-in. The Department has no choice but to continue with implementation and management of its own data centers however, with the increased dependency on the data centers it is imperative that sound design principals and best practices are applied moving forward.

The Department is currently utilising four data centers throughout the province namely Bhisho, King Williams Town, East London and Port Elizabeth. The Department also have regional servers in Ibhayi, Chris Hani, Mthatha, Alfred Nzo, Amatole and BCM. The Department is currently utilising SITA to host the Bhisho, East London and Port Elizabeth Data Centers, the King Williams Town data canter is housed within the Provincial Office server room.

The following are the findings of the assessment of Data Centers;
* The provincial data center facilities were recently upgraded and contain most if not all the required facilities. However, the system runs various versions of Microsoft operating systems, including Windows server 2003, 2008 R2 E, 2008 R2 S, 2012 S, and 2012 R2 S.
* A change management process is required to retire the older versions of the service operating system.

Based on the above findings the following recommendations are made;
* Acquire and implement monitoring tools for both the data centre and networks to ensure effective evidence-based management of ICT infrastructure and networks.
* Establish a change management committee to take responsibility for ensure that systematic transitions to suitable versions of hardware and software are effectively implemented.

4.2   Network Infrastructure

The Department currently have 139 institutions and 131 of these institutions are cabled. The maturity level of the networks at the institutions may vary dramatically, ranging from modern, fully saturated, managed networks to unmanaged networks with only a few points in critical offices.

The Departmental institutions consist of government owned buildings, leased building, prefabricated structures and shared buildings with other entities. The accommodation arrangements have necessitated that the Department apply different cabling standards on an institution-by-institution basis, this is to minimise the risk of losing the significant capital investments required to establish a functional *Local Area Network(LAN)*. The cabling standards applied are encapsulated in the approved Networking Standards of the Department.

The Department have adopted CAT5e as the minimum standard for any LAN, this standard was introduced in 2001 meaning that some of the Departmental networks can be 14 years old already.

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The most of the LANs installed in Departmental institutions will require significant upgrades or even complete replacement within the next 5 to 10 years in order to accommodate new users and bandwidth requirements of the additional systems and services being developed and implemented.
The following are the findings of the assessment of Network Infrastructure;

- Switches: The LAN Core switch, layer 3 switches, CISCO. The department uses different makes of switches, namely, 3COM, HP, and H3C.
- Cabling: LAN cabling is based on T-568B, Krone and Molex standard cabling. These are the same time equivalent to (Cat 5, CAT 5E and some Cat 6) standard cabling. The cables can support unified communications. Multimode and single mode fibre from core to distribution. In the district offices visited LAN cables were found to be exposed (not covered) and were all over the floor.
- Network points: adequate network points are provided in the provincial office. At the district level, the number of network points are not sufficient.

 Based on the above findings the following recommendations are made;

- Review the state of network cabling in the district offices to determine the extent to which these do not meet accepted standards
- The department should adopt a Gigabit cabling standard for all its future network cabling requirements. Doing so would ensure that the resulting network infrastructure has the right capability to support a unified communication system that has the capacity to carry data, voice and video in the same network
- The department should carry out an inspection of the state of network cabling in the district offices to determine the extent to which these do not meet accepted standards.
- Switches of different makes and models should not be used, as this raises maintenance and support requirements due to different skill sets being required.

4.3   WAN Connectivity

The Department is currently obligated to use SITA as the service provider for WAN connectivity in accordance to the State Information Technology Agency Act 38 of 2002 subsection (7)(a)(i). The Department currently forms part of the **National Government Network (NGN)** that connects about 3100 national, provincial and local government institutions.

The Department have WAN connectivity at 94% of its institutions with bandwidth ranging from 64KBs to 10MBs, the bandwidth provided is dependent bandwidth availability from Telkom and the technology used. The connections are provided utilising various fixed line infrastructure and wireless technologies, the Department prefers fixed line infrastructure as it is less prone to environmental interference.

The Departmental institutions are spread over a large geographical area with bulk of the institutions in rural areas. The provision of connectivity in rural remains a challenge due to unavailability of fixed line infrastructure or viable wireless options.

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The WAN connectivity is currently only used for the provision of access to transversal and Departmental systems, email and internet. The bandwidth available on the current NGN is not sufficient to support productivity tools and unified communication solutions, the Department will have to utilize the networks of external service providers in order to benefit from these technologies.

The Department is currently participating in the establishment of Provincial **Virtual Private Network (VPN)** which will allow the Eastern Cape Province more autonomy in terms of bandwidth, Internet bandwidth and the establishment QoS (quality of service) rules. Once the VPNC is established the Eastern Cape Province will be the ability the upgrade, configure and manage the available bandwidth to allow for the utilization of productivity tools and unified communication solutions.
The following are the findings of the assessment of Wan Connectivity;

- There are challenges with connectivity across the Province, particularly at the District offices
- The functionality of these connectivity were found to be more constrained in the more rural district offices than in the urban ones.
- The bandwidth of these connectivity vary from 64Kb to 2Mb. These were found to considerably inadequate to meet ECDSD business needs.

Based on the above findings the following recommendations are made;

- Upgrade connectivity capacity of the network, especially to district offices
- Consider upgrading the bandwidth of connectivity to district offices to a level comparable to those small business organizations, namely 20 – 50Mb. This will considerably strength the capacity of district offices to make more effective use of ICT to improve productivity and performance.
- Consider creating redundant connectivity to its district offices in order to improve availability and quality of service. The redundant connectivity should use provide wireless technologies, such as radio link or GSM.

4.4 End User Equipment

The Department employees about 4900 employees and 75 percent of all employees currently have a computer or a laptop allocated to them. The Department is in the process of automating additional business processes and eventually all employees will require access to a computer to perform their daily functions.

The Department's inventory of end user devices consists of reasonability up-to-date to very old equipment, the current split is 51% in warranty to 49% out-of-warranty equipment. The allocation of end user equipment currently depends on the availability of office space, office furniture, reasonable security and access to electricity, officials that do not access to these basic working tools will not receive ICT equipment. However, mobile devices can be issued to employees should the Department decide to create a mobile workforce (officials that are not office bound).

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The current drive to automate business processes have created a situation where automation of end users is irresponsibly fast-tracked in a non-sustainable manner, the automation of new users are prioritised above the maintenance of the current end user equipment inventory. Based on the current funding available for end user devices, users will have use their equipment for up to 11 years. The drive automated for users have also created a situation where the Department is severely under licensed for Microsoft client access licenses (CAL) and system software.

The following are the findings of the assessment of End User Equipment;

- Following a recent refresh of its ICT infrastructure, including its EUDs, the department was found to have a reasonably up-to-date inventory of PCs and laptops. This good story however does not extend to all district offices, as some of the latter offices visited were found to have considerable shortage of PCs and laptops. In some cases, officers were forced to share PCs. This basically means when one officer is working, the other officer is idling.
- The department has a mixture of network and multifunction printers at both the provincial office and the districts. While all these devices were found to be working well, the supply of toners was found to be problematic in the districts visited. Similarly, the maintenance and support was problematic at the districts.
- The PCs and laptops were found to running on different versions of Windows operating systems. The different versions of Windows O/S found to be in use include Windows XP, Vista, 7, 8, 8.1, and 10. The situation was the same at both provincial office and districts offices.
- The Microsoft Assessment and Planning (MAP) Toolkit, an agentless inventory, assessment and reporting tool, was used to assess the IT environment. At the time of the assessment, it was established that EC ECDSD has 107 machines running on Windows XP, two machines running on Windows Vista, 1937 machines running on Windows 7 and 13 machines running Windows 8.
- A similar assessment established that the ICT server platform has 12 Virtual Servers are running Windows 2008 and 45 virtual servers are running Windows 2012. The Virtual Servers are however running on a Physical Server which in turn runs on Windows 2012 R2.
- The inventory of PCs and laptops are reasonable up to date at the provincial offices, but not in the district offices. Furthermore, the number of PCs and laptops is not adequate
- The telephone system is the provincial office is using IP or VOIP (voice of IP) telephony, while the district offices are still on the normal analogue voice telephony.

Based on the above findings the following recommendations are made;
- Ensure a sufficient supply of PCs and laptops in the districts. This will ensure considerable performance improvement in these offices as the service delivery coalfaces of the department.
- Consider upgrade the telephone system in the districts to VOIP with video conferencing capabilities. These new capabilities are extremely useful on conducting online meetings, thus cutting down the cost of travel for manager to attend meetings at the head office.
- The department should strive to maintain an up to date inventory of PCs and laptops. This would replace an annual replacement plan that depends on the economic life of the equipment as defined by a policy.

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- Where the economic life is taken to be three years, the plan should aim to replace at least a third of the total number of PCs and laptops each year.

4.5   ICT Services Management

The Department used to outsource all its technical support and specialized support service functions, it utilized SITA and other services providers to perform these functions. The Department made a strategic decision to rather insource most these functions in order to benefit from the associated reduction in costs.

In recent years all technical support services were insourced, ICT managers and technical support staff were employed at the Provincial Office and in all districts. The Department now have the internal capability to perform hardware, software and operational support. The Department also implemented Microsoft System Center Configuration Manager (SCCM) as a help desk solution.

The Department also started with the insourcing of specialized support service for its data center and network environments, however additional capacity building is required. The Department still utilizes service providers on certain occasions to troubleshoot, configure and implement solutions when the internal resources are not adequately skilled.

The Department is still fully dependent on external service providers for network installations there is not a sufficient need within the Department to justify the establishment of a fulltime cabling team.

The following are the findings of the assessment of ICT Services Management;

- The ICT help desk function is established but ITSM best practice has not been adopted.
- The level of technical (desktop) support staffing the department is not sufficient to provide adequate services to meet business needs given the expansive geographical footprint of the department.

Based on the above findings the following recommendations are made;

- The department should adopt a best practice IT service management based on ITIL to achieve a business-driven management of ICT services.
- The department should review its current staffing levels for technical support services with a view to matching these to departmental needs.

6.   ICT Security and Business Continuity Assessment

5.1   ICT Continuity Plan

The Department has embraced the use of ICT to automate its business process in an effort to make the operations of the Department more efficient, this have inadvertently created a considerable dependency on ICT. The ICT section have made great strides over the past few years to provide a stable, robust and scalable solutions to host the Departmental systems.

Prevention is better that cure, this statement holds truth even for ICT as preventing any downtime of any system is a key priority. The ICT section has designed and implemented data centres with this in mind.

Design considerations taken to ensure uptime at current data centres.
* **Redundancy –** The aim is to prevent downtime by the failure of any single component or system. The servers used should have redundant components like power supplies, network cards, Central Processing Units (CPU), fan kits, etc. Since the Department has implemented a virtualisation strategy even the servers are redundant, the virtual servers are hosted on a cluster of physical servers where even the complete failure of a server should not impact on operations. Every single component in a data centre should have a failover.
* **Environmental Controls –** The Departmental data centres are hosted in server rooms where every aspect affecting ICT is controlled: temperature, access, fire suppression, power supply, connectivity. The entire environment is designed and maintained to ensure the uptime of systems and to mitigate the risk of common disasters like flooding or fire.
* **Virtualisation –** The concept of virtualisation is to use current hardware investments optimally and to improve reliability by abstracting business systems from the hardware they run on. This creates an environment where business systems are not stored on the servers they run on but on a shared storage device, the business systems only utilises the processing, memory and networking resources of the host server. The virtual environment can be run in High Availability mode where business systems should always be live even in the event of a hardware failure of one or more servers, the only limitation is that the remaining hardware must have enough processing, memory and networking resources run all the virtual servers.

The abovementioned strategies should prevent any regular downtime caused by the failure of components, moderate flood, human error, etc. However, this does not address natural disaster, manmade disaster or wilful damage. The Department have implemented various strategies to react to these disasters and to minimise data loss or system downtime.

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The findings on the assessment of ICT continuity plan are on preventative strategies implemented by the Department. They are;

- Periodical replication of key business systems. The Department currently utilises two different solutions to perform replications of business systems, this is due to the mixture of both virtual and physical servers that were run until recently. The solutions currently used are VEEAM and Platespin appliances. The Department currently have two data centres that hosts production servers and one data centre for business continuity. The production servers in the Provincial Office are replicated to the Bhisho switching centre utilising the Platespin Appliances and production servers in the Bhisho switching centre are replicated to the East London switching center using VEEAM.
- Daily backups are performed by the Department of business systems. Backups does not provide complete protection against data loss but it does minimise the amount of data lost, based on the current backup plans implemented no more than 8 hours of data should be compromised.

The recommendations in this regard include;

- The Department needs to rationalise the implementation of data centres, all production servers should be hosted in a single data center preferably the Bhisho switching center. The Department must implement a staging and testing data center at the Provincial office for system development and data warehousing. The East London Data center should become the dedicated business continuity/disaster recovery site and all production servers should be replicated there.

5.2 Information Security

Information is the currency of the 21st century. According to ISACA information security "ensures that within the enterprise, information is protected against disclosure to unauthorized users (confidentiality), improper modification (integrity) and non-access when required (availability)." The Department understand that information security is not an option, but, rather, a necessity.

ECDSD understand that protecting information assets is critical to service delivery. With the passing of the Protection of Personal Information Act (POPI) in the country, the bar has been risen in the manner in which we protect information. Moreover a security breach means more than the cost to repair vulnerable hardware or software. A security breach can result in the loss of intellectual assets vital to the department and can hamper service delivery. The department has taken proactive steps in curbing this risk by developing Information Security policies and invested in technology to guard against malicious codes that can steal information. However the department is mindful of the fact that people will continue to be the weakest link in the security chain. Therefore the department has developed a security awareness program and is deployed throughout the districts and metros in an effort to address this shortfall.

Findings;

There is an out dated IT Continuity/ disaster recovery site and related arrangements. Outdated Information Security Framework and ICT security policies. Inappropriate storage facilities and arrangements for confidential files particularly at the District offices scattered around the office and no shredding machine was established during the visits. Few employees have been subject to screening.

Recommendation;

Establish BCM/BCP program covering district offices and implement an IT continuity offsite. Review and develop Master Security Policy that includes BYOD policy for ease review, recommendation and approval. There is need to formalise Security eDiscovery and Forensic Process: Data Collection, Examination, Analysis, and Reporting. Formally define a process for screening prior to employment, during employment, and termination or change of employment. Ensure compliance to POPI Act.

5.3 ICT Governance Risk and Compliance

The corporate governance of ICT is an integral part of enterprise governance and consists of leadership and organizational structures and processes that ensure ICT sustains and extends the organization's strategies and objectives. The department has made significant strides in the implementation of the Department of Public Service Administration (DPSA) Corporate Governance of ICT and has established the ICT governance structures. The Department has since adopted COBIT 5 Framework in 2013 and 12 (twelve) IT Processes have been identified to be included as IT initiatives for improvement. COBIT is industry-wide accepted IT Governance best practice Framework and COBIT 5 has been adopted by the DPSA and Provincial Government Information Technology Officers Council (PGITOC). These processes are informed by the priority focus areas for ICT audits, as defined by the AG.

The minimum processes are:
- EDM01: Governance framework setting and maintenance
- APO01: Manage the ICT management framework
- APO02: Manage strategy
- APO03: Manage enterprise architecture
- APO05: Manage portfolio
- APO10: Manage Suppliers
- APO12: Manage Risk
- APO13: Manage security
- BAI01: Manage security: Manage Programmes and Projects
- DSS01: Manage operations
- DSS04: Manage continuity
- MEA01: Monitor, evaluate and assess performance and conformance

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5.4 IT Governance structures and RACI Charts

IT Governance is a subset discipline of Corporate Governance that focuses on demonstrating business value from the investment in IT by using IT resources responsibly, performance managing the IT capability and risk management. The ITGI defines Enterprise Governance as a set of responsibilities and practices exercised by the board and executive management with the goal of providing strategic direction, ensuring that objectives are achieved, ascertaining that risks are managed appropriately and verifying that the enterprise's resources are used responsibly. Prudent management has come to understand that effective ICT governance is critical because it provides quantitative benefits. The following are the ICT Governance structures and RACI (**Responsible, Accountable, Consulted and Informed**) chart in place for terms of reference please refer to the approved CIO Charter:

1. ICT Strategic Committee - ISC
2. ICT Steering Committee -ITSC
3. ICT Operational Committee - IOC
4. Change Control Board -ICCC
5. ISS/Risk Committee –RISSC

Table 7: IT Governance structure RACI

Roles	ISC				ITSC				RISSC				ICCC				IOC			
Functions	R	A	C	I	R	A	C	I	R	A	C	I	R	A	C	I	R	A	C	I
ICT Strategic Alignment	●	●			●						●		●						●	
ICT Resource Management			●		●	●					●		●				●			
ICT Performance and Conformance	●				●	●					●		●				●			
ICT Value Delivery	●				●	●					●		●				●			
Enterprise Architecture			●		●						●		●	●			●			
Information and Knowledge Management			●		●	●					●		●				●			
ICT Risk Management	●				●				●	●			●				●			
ICT Investment management	●				●	●			●				●				●			
Organisational Change	●				●	●			●				●				●			
Enabling CGICT Environment	●				●	●			●				●				●			
ICT Compliance	●				●				●	●			●				●			
ICT service management			●		●	●					●		●				●			

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The table below is the stakeholders within the Department and their roles and responsibilities with respect to the key ICT decisions or processes as recommended by DPSA.

Table 8: IT Governance Stakeholder RACI

Roles / Functions	Executive Authority				Superintendent General				Executive Management				Business Owners				Chief Information Officer			
	R	A	C	I	R	A	C	I	R	A	C	I	R	A	C	I	R	A	C	I
ICT Strategic Alignment	●	●			●				●						●		●			
ICT Resource Management			●		●						●	●	●				●	●		
ICT Performance and Conformance	●				●	●						●	●			●	●			
ICT Value Delivery	●				●	●			●		●				●		●			
Enterprise Architecture			●		●						●		●		●		●	●		
Information and Knowledge Management			●		●	●					●		●				●			
ICT Risk Management	●				●				●				●				●	●		
ICT Investment management	●				●	●			●				●				●			
Organisational Change	●				●	●			●		●		●				●			
Enabling CGICT Environment	●				●	●			●				●				●			
ICT Compliance	●		●	●			●	●	●		●		●			●	●	●		
ICT service management		●			●						●		●				●	●		

5.4.1 Roles and Responsibilities

Table 9: ICT Governance Roles and Responsibilities

Structure	Principles	Practice
Executive Authority	▪ Must ensure that Corporate Governance of ICT achieves the political mandate	▪ Provide political leadership and strategic direction, determine policy and provide oversight; ▪ Ensure that ICT service delivery enables the attainment of the strategic plan; ▪ Ensure that the department's organisational structure makes provision for the Corporate Governance of ICT ▪ Where applicable ensure CGICT arrangements are in place for cross sector responsibility
Superintendent General	▪ Must ensure that CGICT supports the department to achieve its strategic plan ▪ Must create enabling environment for CGICT within prescriptive and secure context	▪ Provide strategic leadership and ensure alignment ▪ Place CGICT on strategic agenda ▪ Ensure CGICT Policy is developed and implemented

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		▪ Ensure roles and responsibilities are defined and delegate authority, responsibility and accountability ▪ Ensure realisation of value through use of ICT ▪ Ensure CGICT and ICT capacity and capability is provided ▪ Ensure monitoring of CGICT and alignment effectiveness
ICT Strategic Committee	▪ *Evaluate* the departmental strategic plan, internal and external environment	▪ Identify stakeholder needs and how it should be realised ▪ Determine value ICT is expected to create through its enablement of the business ▪ Define the benefits ICT is expected to realise in its enablement of business ▪ Articulating ICT risk appetite and how it should be management within the risk management regime of the department ▪ Facilitate the establishment of sufficient ICT organisational structure, resources, capacity and capability ▪ Evaluate and monitor significant ICT expenditure
ICT Steering Committee	▪ Coordinate development of CGICT Policy ▪ Coordinate planning based on direction received from the ICT Strategic Committee ▪ Determine, prioritise and recommend plans, policies, strategies, resource/capacity requirements, portfolios of ICT projects and risk management to ICT Strategic Committee and/or SG ▪ Oversee the identification of the ICT prescriptive environment	▪ Oversee the implementation of approved plans, policies, strategies, resource/capacity requirements, risk management, benefits realisation, portfolios of ICT projects, internal and external audits ▪ Determine the monitoring criteria and related reporting requirements and processes for conformance, performance and assurance ▪ Provide direction to all ICT related decisions that may have an impact on the business operations and culture of the department that is escalated to the Committee

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Findings;
Although certain IT Governance decision-making bodies are defined, there is no evidence that they operating effectively. No evidence of full understanding of the total cost of ownership (TCO) of IT in the organisation. Regular formal communication between Business and IT is lacking. A lack of collaboration exists between IT at the Provincial office, IT in Districts, and Service Providers. There is a lack of a centralised IT Service Catalogue, resulting in business being unsure of the services available to them as well as who to approach concerning required IT services. Business does not seem to place enough business value on the ECDSD's information assets, as well as the importance of ensuring its confidentiality, integrity and availability through effective information management practices (i.e. secure storage).

Recommendation;
Executive Leadership needs to promote value and establish operational effectiveness of the ICT governance structures. Review and implement the DPSA Corporate Governance of ICT (CGICT) Standard. Improve management awareness and sensitisation on the TCO of ICT to the department. This should be linked to the expected benefits of the technology. Develop effective ICT operations processes via the governance committee. Implement IT Services Management in a phased approach via the CGICT committee. Involve and align the IT Steering Committee more closely with the business owners planning initiatives.

CHAPTER 4: FIVE YEAR MASTER IT PLAN – 2016-2020

1.   Introduction and Methodology

The product of detailed study on the strategic business and ICT articulation, business environmental analysis and current ICT environmental analysis has resulted in listing of initiatives that should be taken into account to meet the business requirement of the Department. The Department entered into a prioritization exercise through wider consultation and that has resulted in the development of a five-year master IT Plan. The master IT Plan has funded projects as well as unfunded projects during the five-year term of 2016-2020. The inclusion of unfunded projects in the Master IT Plan is with an intention of bidding for additional funding from the Departmental vote through re-prioritisation. This approach is adopted to give flexibility to Master System Plan to accommodate additional funding during its life span and also to maintain alignment between IT Plan and Annual Performance Plan which a regulatory requirement.

As mentioned above, master IT Plan is a five-year road map of listed ICT initiatives that the Department is intended to undertake during the period 2016-2020. The list of initiatives has been clustered under the following ICT priorities;

1) Business Process Automation
2) User Automation
3) Information Management and
4) ICT Governance

The performance indicator for each priority has been determined as follows;

1) Number of automated business processes.
2) Number of employees automated to improve efficiency.
3) Number of strategic Business Intelligence reports produced.
4) Maturity level of ICT Governance

The target for each indicator for each year has also been set for five years. The indicative budget expenditure allocation for each indicator target has also been made. The target of Annual Performance Plan is the resultant product of the implementation of those initiatives that are listed in the ICT five-year road map.

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2. Five Year IT Road Map

Table 10: Five (5) year plan road map

No	5 Year Road Map IT Initiatives	Priority	Year 1 2016/17	Year 2 2017/18	Year 3 2018/19	Year 4 2019/20	Year 5 2020/21
	ICT Governance						
1	Review IT Governance framework and implementation plan.	1	●				
2	Review the ICT Awareness approach, with special focus on districts and top management.	1	●				
3	Implementation of a project management tool to support the project management methodology as adopted by management.	2			●	●	
4	Implementation of information security standards and tools.	2	●	●			
	User Automation						
5	Develop an ICT TCO model that take into account all direct and indirect costs.	1	●				
6	Develop a service catalogue.	1	●				
7	Infrastructure Architecture	2		●	●		
8	Implement UC throughout the Department.	1		●	●	●	●
9	Develop and adopt equipment standards and implement OEM management tools	1	●	●			
10	Implement network standards and decentralise to district offices.	1	●	●	●	●	●
11	Replacement of ICT equipment running unsupported Operating Systems.	1	●	●			
12	Participate in the implementation of the provincial VPN.	2	●	●			
13	Rollout of WIFI to offices where fixed cabling is not financially viable.	1	●	●	●	●	●
14	Feasibility study of community based WIFI access.	2		●			
15	Review of back office applications and identify, test and implement like-for-like open source applications.	2			●	●	●
16	Implementation of departmental proxy servers to provide more flexible internet access.	2	●	●			
17	Rationalisation and periodic hardware refresh of Data Center equipment.	1	●	●	●	●	●
18	Implementation of Software Asset Management tools.	1		●			
19	Implementation of infrastructure to support IFMS implementation.	2	●	●			

#		Priority	Col1	Col2	Col3	Col4	Col5
20	Streamline the provisioning and management of ICT equipment.	2		●	●		
21	Implementation mobile strategy for end users.	1	●				
	Information Management Services						
22	Information Architecture	2	●	●			
23	Develop a BI enabled intranet, include Document Management, Performance information, digitizing of forms, dashboards, customised reporting (user driven data extraction/visualisation)	1	●	●	●	●	●
24	Develop and implement an ICT Continuity program.	1	●				
25	Implementation of a user data backups solutions	2					●
26	Development and implementation of a knowledge management strategy.	2		●			
27	Development and implementation of a content management strategy.	2		●			
28	Integration of spatial information into core business services.	2		●	●	●	
	Business Automation						
29	Application Architecture	2		●	●		
30	Implement Electronic learning Management System	2			●	●	●
31	Participate in the National Sector wide automation of core business processes (NISPIS).	2		●	●	●	●
32	Procurement plans	2			●		
33	SCM Catalogue	2			●		
34	BID management/tender Process management	2		●			
35	Asset Management	1		●			
36	Budget management					●	
37	Inventory Management	1			●		
38	Price index	2					●
39	Journal management	2				●	
40	Cash Management	2				●	
41	Debt Management	1			●		
42	Revenue Management	2			●		
43	Trans/Fleet Management	2					●

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No	Name	Priority					
44	Leased Assets	2	●				
45	Telephone Management Interface	2					●
46	Human Resource Planning	2					●
47	Recruitment Management	2			●		
48	Organizational Management	2					●
49	Performance Management (Dept Employees)	1	●	●			
50	Claims	1	●				
51	Career Management, demotions	2				●	
52	Education & Training Management	2			●		
53	Employee wellness	2					●
54	Labour Relations	2					●
55	Employee Movement	2		●			
56	Termination of services	2		●			
57	Records Management	1	●				
58	NGO Management	1	●	●			
59	Community based services	1	●	●	●	●	●
60	NPO Registration, Accreditation	1	●	●			

Legend

● (blue)	One Year Project
● (orange)	Multi-year Projects

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Table 11: Proposed New systems

Name of the IT System(s)	Purpose or Benefit Automation of Business Processes	Responsible Programme/Branch (System Owner)	Timeframe
SDIMS (P2P)	• Price Index • Journal Management • Cash Management • Debt Management • Inventory Management • Fleet Management • Leased Assets • Telephone Management • Procurement Plans • SCM Catalogue • BID Management	Supply Chain Management Chief Financial Officer Chief Financial Officer Chief Financial Officer Supply Chain Management Supply Chain Management Supply Chain Management Supply Chain Management Supply Chain Management Supply Chain Management	March 2021 Feb 2020 Dec 2019 March 2019 March 2018 March 2021 Feb 2017 March 2018 Jan 2019 Jan 2018
SDIMS (HRMS)	• Organisational Management • Performance Management • Claims • Career management • Education and Training • Employee Wellness • Labour Relations • Employee Movements • Termination of services • HR Planning • Recruitment Management • Records Management	Corporate Services Strategic Planning Chief Financial Officer Corporate Services Corporate Services Corporate Services Corporate Services Corporate Services Corporate Services Corporate Services Corporate Services	March 2021 March 2017 March 2016 April 2019 April 2018 June 2017 June 2021 April 2017 March 2021 March 2019 March 2017
SDIMS (NISPIS)	• NGO Payments • Community Based Services • NPO Registration • Accreditation • Facilities • Community Projects	Programme2;3;4;5	March 2019 March 2021 March 2019

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3. ICT Annual Performance Plan 2016-2020

Table 12: IT Enablement Objectives

Strategic Priority	Indicator	Targets				
		Year 1 2016/2017	Tear 2 2017/2018	Year 3 2018/2019	Year 4 2019/2020	Year 5 202/2021
Business Process Automation	Total number of automated business processes.	24	25	26	27	28
User Automation	Number of employees automated to improve efficiency.	3900	4000	4050	4100	4150
Information Management	Number of strategic Business Intelligence reports produced.	169	177	178	179	180
ICT Governance	Maturity level of ICT Governance	2.25/5	2.5/5	2.75/5	3/5	3.25/5

4. ICT Budget and Spending Plan

The table below is an indication of current IT budget spending. The Department currently has **R69, 167,875** available to spend across the region on ICT projects and new initiatives such as upgrades or enhancements including compensation of employee. The 5 year plan discuss the various projects and recommended technology solutions that could enable the Department to address service delivery mandates. Constant initiatives and innovations are being considered to reduce costs in the Department. The table below depicts the funded mandate for the MTEF and the projections for the outer years.

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Table 13: ICT Budget and Spending pattern

Indicator	Main Activity	Sub- Activities	Budget('2016-2021)				
			Year 1 (2016/17)	Year 2 (2017/18)[11]	Year 3 (2018/19)[11]	Year 4 (2019/20)[11]	Year 5 (2020/21)[11]
Total number of automated business processes.	System Architecture design.	1. URS Development 2. System Design 3. System Functional Testing	R 2,616,342[1]	R 2,793,958	R 2,983,636	R 3,186,193	R 3,402,505
	System development	1. Technical Spec 2. Development. 3. Functional Unit testing. 4. End user Training and system roll-out. 5. Maintenance and support	R 6,806,909[2]	R 7,269,484	R 7,763,497	R 8,291,085	R 8,854,529
Number of employees automated to improve efficiency.	ICT Infrastructure	1. Data Centre and storage infrastructure 3. WAN/LAN Equipment 4. End user Infrastructure 5.Software Assets	R 16,448,000[3]	R 17,401,984	R 18,411,299	R 19,479,154	R 20,608,945
	ICT Operations	1.Helpdesk & Technical support 2. WAN Connectivity 3. Internet services 4. Hosting services 5. Transversal systems 6. Outsource Specialised support services 7. Project Management Services.	R 34,930,894[4]	R 37,097,372	R 39,399,059	R 41,844,447	R 44,442,563
Number of strategic Business Intelligence reports produced.	Data Warehousing	1. Engaged in internal Business data source and Archiving 2.Engage in External Institutional data source 3. Importing of Internal and External Data sources	R 842,819[5]	R 899,985	R 961,030	R 1,026,217	R 1,095,827
	Business Intelligence	1. Standards Report production (14 reports) 2. BI Dashboard development and Management 3.Quarterly reports including Annual report and Strategic planning report	R 1,174,051[6]	R 1,253,741	R 1,338,841	R 1,429,719	R 1,526,768
	GIS Services	1.Map Production and Dissemination 2.Geospatial data management 3.Internet map service	R 1,621,472[7]	R 1,731,586	R 1,849,180	R 1,974,761	R 2,108,873

	ICT Business Continuity	1. DRP 2. Back-up 3. Restoration procedure 4. Quarterly	R 1,046,180[8]	R 1,117,175	R 1,192,988	R 1,273,948	R 1,360,404
Maturity level of ICT Governance	Governance policies procedures and standards	1. Policy implementation 2. ISS Awareness Training	R 2,866,566[9]	R 3,061,198	R 3,269,047	R 3,491,012	R 3,728,052
	ICT Security	1. Implementation of Governance structures 2. IT Risk Control Plan 3. Audit improvement Plan 4. Risk, Threat and Vulnerability assessment	R 814,642[10]	R 869,743	R 928,573	R 991,386	R 1,058,451
TOTAL			**R 69,167,875**	**R 73,496,226**	**R 78,097,150**	**R 82,987,922**	**R 88,186,917**

Notes:
1. The budget for System Architecture Design in Year 1 is comprised of the following:
    Compensation of Employees: R 2,586,856
    Operational budget (G&S):   R   29,486
    Total   **R 2,616,342**
2. The budget for System Development in Year 1 is comprised of the following:
    Compensation of Employees: R 6,777,423
    Operational budget (G&S):   R   29,486
    Total   **R 6,806,909**
3. The budget for ICT Infrastructure is mainly for Capital Expenditure on items such as SAN, Network Infrastructure, Cabling, End-user Equipment and Software.
4. The budget for ICT Operations in Year 1 is comprised of the following:
    Compensation of Employees: R 14,048,640
    Operational budget (G&S):   R 20,882,254
    Computer Services: R 19,630,000
    Equipment Maintenance: R   1,193,283
    Operations: R   58,971
    Total   **R 34,930,894**
5. The budget for Data Warehousing in Year 1 is comprised of the following:
    Compensation of Employees: R 828,251
    Operational budget (G&S):   R 14,568
    Total   **R 842,819**

6. The budget for Business Intelligence in Year 1 is comprised of the following:
   Compensation of Employees: R 1,159,484
   Operational budget (G&S):   R   14,567
   Total   **R 1,174,051**

7. The budget for GIS Services in Year 1 is comprised of the following:
   Compensation of Employees: R 1,606,904
   Operational budget (G&S):   R   14,568
   Total   **R 1,621,472**

8. The budget for ICT Business Continuity in Year 1 is comprised of the following:
   Compensation of Employees: R 1,031,612
   Operational budget (G&S):   R   14,568
   Total   **R 1,046,180**

9. The budget for Governance policies procedures and standards activity in Year 1 is comprised of the following:
   Compensation of Employees: R 2 837 080
   Operational budget (G&S):   R   29,486
   Total   **R 2,866,566**

10. The budget for Governance policies procedures and standards activity in Year 1 is comprised of the following:
    Compensation of Employees: R 785,156
    Operational budget (G&S):   R   29,486
    Total   **R 814,642**

11. The following inflation rates were utilized for the outer financial years:
    - Compensation of Employees: 6.8%
    - Non-personnel Costs: 5.8%

5.   Non Funded Mandate

The table below depicts the non-funded mandate of ICT and serious consideration should be given to these IT projects. These have been the result of a number of challenges faced by the department. One of the burning issues that IT has to battle with is the growing numbers of the employees and shrinking ICT support services staff. The shortage of HR resource due to vacant and nun funded post contributes adversely on the efficiency of ICT and therefore will have a crippling effect on service delivery. The Department still contend with a huge backlog around user equipment and ailing infrastructure that's needs constant refreshed. Furthermore the pending roll out of IFMS will put more strain on the ICT infrastructure and hence the consideration of a radical upgrade of infrastructure should be consider as the priority.

Table 14: Non funded mandate

Indicator	Main Activity	Sub- Activities	Budget('000)				
			Year 1 (2016/17)	Year 2 (2017/18)[8]	Year 3 (2018/19)[8]	Year 4 (2019/20)[8]	Year 5 (2020/21)[8]
Total number of automated business processes.	System Architecture design.	1. URS Development 2. System Design 3. System Functional Testing	R0	R0	R0	R0	R0
	System development	1. Technical Spec 2. Development. 3. Functional Unit testing. 4. End user Training and system roll-out. 5. Maintenance and support	R 1,633,095[1]	R 1,744,145	R 1,862,747	R 1,989,414	R 2,124,694
Number of employees automated to improve efficiency.	ICT Infrastructure	1. Data Centre and storage infrastructure 3. WAN/LAN Equipment 4. End user Infrastructure 5.Software Assets	R 23,846,053[2]	R 35,228,065[8]	R22,843,209	R28,140,973	R 28,048,855
	ICT Operations	1.Helpdesk & Technical support 2. WAN Connectivity 3. Internet services 4. Hosting services 5. Transversal systems 6. Outsource Specialised support services 7. Project Management Services.	R 1,915,232[3]	R 2,045,468[7]	R 2,184,560	R 2,333,110	R 2,491,761
Number of strategic Business Intelligence reports produced.	Data Warehousing	1. Engaged in internal Business data source and Archiving 2.Engage in External Institutional data source 3. Importing of Internal and External Data sources	R 514,430[4]	R 549,411	R 586,771	R 626,672	R 669,285

	Business Intelligence	1. Standards Report production (14 reports) 2. BI Dashboard development and Management 3.Quarterly reports including Annual report and Strategic planning report	R 514,430[5]	R 549,411	R 586,771	R 626,672	R 669,285
	GIS Services	1.Map Production and Dissemination 2.Geospatial data management 3.Internet map service	R0	R0	R0	R0	R0
	ICT Business Continuity	1. DRP 2. Back-up 3. Restoration procedure 4. Quarterly	R 1,342,680[6]	R 1,433,982	R 1,531,493	R 1,635,635	R 1,746,858
	IFMS Implementation	1. Connectivity upgrades 2. Core data center equipment 3. End user equipment 4. Software licenses	[7] Addendum	-	-	-	-
Maturity level of ICT Governance	Governance policies procedures and standards	1. Policy implementation 2. ISS Awareness Training	R0	R0	R0	R0	R0
	ICT Security	1. Implementation of Governance structures 2. IT Risk Control Plan 3. Audit improvement Plan 4. Risk, Threat and Vulnerability assessment	R0	R0	R0	R0	R0
TOTAL			**R 47,003,011**	**R 41,550,482**	**R 29,595,551**	**R 35,352,476**	**R 35,750,738**

Notes:

1. The unfunded budget for System Development in Year 1 is for the following posts that are currently not funded:
    * 6 x Control Computer Operators in six (6) Districts
    * 1 X Administration Officer at Provincial Office
2. The unfunded projects for ICT equipment and software assets include
    * Shortfall for Microsoft (50%) and back office application licensing (70%)
    * Implementation of a desktop backup solution
    * Implementation of a unified communications solutions
    * Periodic replacement of data center equipment
    * Periodic replacement of networking equipment

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- Upgrades of storage for backups and production systems
- Shortfall for periodic replacement of end user equipment (70%)

3. The unfunded budget for ICT Operations in Year 1 is for the following posts that are currently not funded:
   - 2 x Deputy Directors
   - 1 x Network Controller for BCM
   - 1 x Admin Officer

4. The unfunded budget for Data Warehousing in Year 1 is for the post of an Assistant Director (Specialist DRP and BCP) that is currently not funded.

5. The unfunded budget for Business Intelligence in Year 1 is for the post of an Assistant Director (Senior Data Analyst) that is currently not funded.

6. The unfunded budget for ICT Business Continuity in Year 1 is for the following posts that are currently not funded:
   - 1 x Deputy Director (Knowledge Management)
   - 1 x Assistant Director

7. The costing to rollout IFMS during 17/18 cannot be determined at this time, the actual solution, implementation topology and systems requirements are not available.

8. The unfunded budget for ICT Infrastructure in Year 2 is for the following Implementation of UC at the provincial office and 8 Districts 13,000,000 and additional 2,000,000 each year from 3 to 5

9. The following inflation rates were utilized for the outer financial years:
   - Compensation of Employees: 6.8%
   - Non-personnel Costs: 5.8%

7.   IT Landscape Progression

The diagram below reflects the ideal IT system landscape for an organisation. 95% of the functionality required should be catered for in the Social Development Information Management System (SDIMS) while remaining 5% of software deployed in the environment is transversal and off the shelf systems that is government specific.
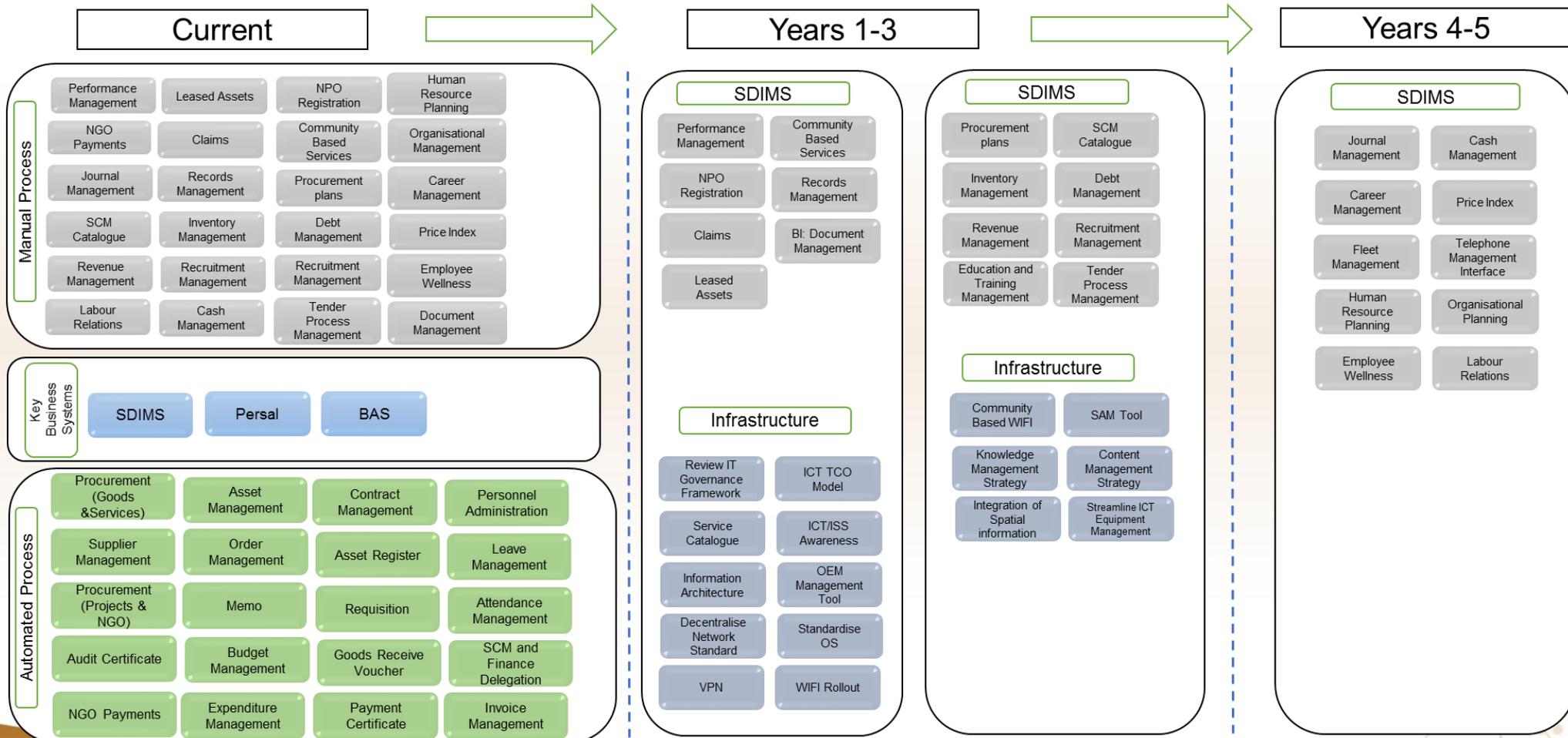
Diagram 2: IT Landscape progression

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CHAPTER 5: ICT GOVERNANCE AND MONITORING

1.   Introduction

The development and implementation of the IT Plan will require a rigorous IT performance and monitoring processes to be in place to ensure effective IT performance management. This will further ensure that underperformance and misalignment is detected and corrected in a timely fashion. Monitoring is needed to make sure that the right things are done and are in line with the set directions and policies. The process includes defining relevant performance indicators, a systematic and timely reporting of performance and prompt acting on deviations. Thomas S Monson once said "When performance is measured, performance improves. When performance is measured and reported, the rate of improvement accelerates" (see Thomas S. Monson, in Conference Report, Oct. 1970, 107).

2.   ICT Organisation Structure

The diagram below depicts the current ICT organization structure and the positions of personnel charged with managing and providing ICT support to the Department of Social development Eastern Cape. The Chief Director is the GITO and provides strategic direction to the ICT organization. The three director positions and the structures beneath are focused on Information Technology. All these services are decentralised to the districts

CHIEF INFORMATION OFFICE

Chief Directorate: Information Management Systems & Technology(IMST) services / Chief Information Officer

Purpose : To manage the provision of information management systems and technology services (IMST)

Functions:
1. The Development, designing and mainTenance of information communication and technology infrastructure and solutions for the department.
2. The Development , implementation and maintaintenance information systems based on departmental system architecture
3. The rendering of management information services forf the department.
4.. The rendering of ICT Governance and vulnerability management services

1 Chief Director
1 PA
1 Office Manager **(Programme 1)**

Directorate : ICT Operations and Infrastructure

Purpose : The development, designing and maintainace information communication and technology infrastructure and solutions for the department
Functions:
1. Render ICT operation services
2. Render ICT network services
3. Plan , design, develop and implement ICT infrastructure

Directorate : Systems Development and Maintenance

Purpose : The development , implementation and maintaintanance information systems based on departmental system architecture

Functions:
1. Render Application systems architecture, business requirement development and design.
2. Render systems development, enhancements and maintenance
3. Manage systems operational use and functional support

Directorate : Management Information Services

Purpose: The rendering of management information services for the department.

Functions:
1. The rendering of the departmental data warehouse management, business continuity and disaster recovery services
2. The rendering of Business Intelligence and spatial referencing services
3. The rendering of electronic rrecords and knowledge management services

---

Sub-Directorate : ICT Governance and Vulnerability Management

Purpose: To render ICT Governance co-ordination and vulnerability management services
Functions:
1. Co-ordinate the development, review and monitoring of IMST plan.
2. Co-ordinate development, review and implementation of ICT Governance and ISS policies, procedures and standards.
3. Conduct regular ICT governance maturity audit.
4. Conduct regular vulnerability assessments..
5. Develop and monitor implementation of ICT risk control plan.
6.. Conduct regular independent audit on all departmental systems.
7. Conduct security awareness among stakeholders.

1 Deputy Director (Senior Specialist – ICT Governance and security) L 11

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ICT OPERATIONS AND INFRASTRUCTURE

Directorate : ICT Operations and Infrastructure

Purpose : To develop, design and maintain information communication and technology infrastructure and solutions for the department
Functions:
1. Render ICT operation services
2. Render ICT network services
3. Plan , design, develop and implement ICT infrastructure

1 Director
1 PA

Sub- Directorate: ICT Operations

Purpose : To render ICT operation services

Functions:

1. Render ICT operations
2. Render end user equipment support
3. Provide ICT call centre service
4. To render ICT Governance coordination and vulnerability management services

1Deputy Director (Senior Specialist - ICT Operations) L 11
1 Assistant Director (Specialist operation Support) L 9
1 Admin Officer L 8
1 Admin. Clerk L 5
4 Chief Network Controller L 8
2 Senior Network Controller(Operations) L7
1 Senior Network Controller L7(Help Desk)

Sub-Directorate: ICT Networks

Purpose : To render ICT network services

Functions:

1. Render network planning, design, implementation and maintenance.
2. Render Net work administration
2. Render Storage Area Network administration

1Deputy Director.(Senior Specialist - ICT Network) L 11
1 Deputy Director (Senior Specialist (Network Operating Sys) L11
1Deputy Director (Senior Specialist(SAN) L 11
1 Assistant Director (Specialist network operation support) L 9
1 Admin Clerk

Sub-Directorate: ICT Infrastructure

Purpose : To plan , design, develop and implement ICT infrastructure

Functions:

1. Develop infrastructure plan
2. Maintain ICT infrastructure

1 Deputy Director(Senior Specialist(ICT Infrastructure) L 11
1 Admin Officer

SYSTEMS DEVELOPMENT AND MAINTENANCE

Directorate : Systems Development and Maitenance

Purpose : To develop , implement and maintain information systems based on departmental system architecture

Functions:
1. Render Application systems architecture, business requirement development and design.
2. Render systems development, enhancements and maintenance
3. Manage systems operational use and functional support

1Director
1 PA

Sub- Directorate:Application Systems Architecture and Business Analysis

Purpose: Render application systems architecture, business requirements development and design services.
Functions:
1. Develop and maintain a blue print to solve problems.
2. Develop and improve business processes.
3. Develop business requirements.
4. Perform system quality assurance.
5. Render system and graphical design services.

1 Deputy Director (Senior Specialist – Solution Architecture) L 11
2 Assistant Director (Specialist Business Analyst) L 9
1 Assistant Director – (Specialist- Content Designer) L 9
2 Assistant Director – (Specialist – Software Quality Control) L 9

Sub- Directorate: Systems Development & Maintenance

Purpose: Render system development, enhancements and maintenance
Functions:
1. Develop technical specification of the system.
2. Develop application systems.
3.. Render systems enhancements And maintenance services
4. Administer and provide technical support on existing application systems, other software and databases.

1 Deputy Director (Senior systems specialist)L 11
1 Deputy Director (Senior analyst programmer) L11
1 Deputy Director (Senior Database Administrator) L 11
4 Assistant Director (Analyst Programmer) L 9
1 Assistant Director (Database administrator) L 9

Sub- Directorate: Systems Operations and Support

Purpose: To manage systems operational use and functional support
Functions:
1. Render the roll out of all systems in the Department
2. Render Systems Training management services
3. Render the systems help desk and functional support services
4. Render user Accounts management on the systems
4. Develop and implement systems Training..

1 Deputy Director(Senior Specialist Systems Operational Support) L 11
4 Ass Director(Specialist systems operational support) L 9
1 Senior Training Officer(MIS Trainers) L 8
2 Admin Officer (Help Desk Operator)L 7

INFORMATION MANAGEMENT

Directorate : Information Management

Purpose: The rendering of management information services for the department.

Functions:
1. The rendering of the departmental data warehouse management, business continuity and disaster recovery services
2. The rendering of Business Intelligence and spatial referencing services
3. The rendering of electronic rrecords and knowledge management services

1 Director
1 PA L 7

Sub-Directorate : Data Warehouse, Disaster Recovery and Business Continuity.

Purpose: The rendering of departmental data warehouse management, business continuity and disaster recovery services
Functions:
1. Develop and maintain data warehouse architecture of the department
2. Facilitate and source data from external sources
3. Archive information in the data warehouse
4. Develop and monitor DRP and BCP for ICT.
5. Render back-up services of systems and restoration procedure.

1 Deputy Director (Senior Specialist – Data Warehouse, DRP & BCP) L 11
1 Ass Director (Specialist DRP and BCP)

Sub-Directorate : Business Intelligence and spatial referencing

Purpose: To render Business Intelligence and spatial referencing services
Functions:
1. Provide data analysis of the departmental data.
2. Develop and provide management reports.
3. Render Geo-Database management service.
4. Render data management service for GIS.
5. Render Map production services.
6. Render configuration management services for GIS software and hardware.
7. Render project management, research and development services for GIS.

1 Deputy Director(Chief Data Technologist) L 11
1 Assistant Manager(Senior GIS Technologist) L 9
3 Assistant Manager (Senior Data Analysts) L 9
1Senior GIS Technician L 7

Sub-Directorate: Knowledge Management

Purpose: To render Electronic records And knowledge management services.
Functions:
1. Develop and maintain Dept. knowledge management policies/strategies.
3. Identify, collate and store knowledge reports.
3. Establish learning network in the department.
4.Facilitate and access to departmental knowledge.
5. Establish and maintain resource centers.
5. Co-ordinate the implementation and monitoring of electronic records management system.

1Deputy Director (Knowledge Management)
1 Assistant Director

DISTRICT STRUCTURE

Sub-Directorate: Corporate Services

Purpose: To manage and facilitate the provisioning of Corporate Services in the District Office.
Functions:
1. Manage and facilitate the provision of information communication and technology management services in the District Office.
2. Manage and facilitate the provisioning of human resources management services in the District Offices
3. Provide Office Support services in the District Office.
4. Manage the provision of communication and events management services in the District Office.
5.To ensure safeguarding of government property under the districts.

1 Deputy Director

Section :IMST

Purpose : To manage and facilitate the provision of information communication and technology management services in the District Office.
Functions:
1. Provide and facilitate ICT infrastructure and operational support services.
2. Provide and maintain ICT administrative systems and ensure data integrity.
3. Conduct ICT research and advise the district on ICT needs and requirements.
4. Provide ICT Internal Security
5. Provide records management services.

1 Assistant Director (ICT)
1 Control Computer Operator
1Network Controller

Section : HRM

Purpose: To manage and facilitate the provisioning of human resources management services in the District Office
Functions:
1. Provide human resource administration Services and facilitate recruitment services.
2. Provide and facilitate performance management and development services.
3. Provide and facilitate labour relations management support services.
4. Provide and facilitate employee, health and wellness support services.
5. Provide and coordinate training and skills development support services.

1 Assistant Director (HRA & Recruitment, PMDS, Training,
2 HR Practitioner
1 Assistant Director (Labour Relations , EAP)
1 HR Practitioner (Labour Relations)
1 HR Practitioner (EAP)

Section : Records Management

Purpose: To Provide Records management services

Functions:
1.Implementation and monitoring of records and file plan for the District
2. Implementation of information archiving and disposal services
3. Monitor compliance with Archives Act
4. Implementation of transversal policies related to document centres.

1 Assistant Director
2 Chief Registry Clerk
4 Registry Clerk
2 Messenger Driver
1 Messenger

Section : Communication

Purpose: To manage the provision of communication and events management services in the District Office.

Functions:
1. Provide internal and external communication services.
2.Provide events management services.
3. Contribute to the content for develop and maintenance of departmental website.
4. Provide publication and photo journalism services.
5 Provide customer care services

1 Assistant Director
1 Communication Officer
1 Customer Care Officer

Section: Physical Security Services

Purpose: To ensure safeguarding of government property under the districts
Functions:
1. Ensure access control around premises.
2. Conduct security investigations regarding physical security.
3. Manage and control office keys and combinations.
4. Ensure physical searches on persons and vehicles.
5. Develop and monitor implementation of contingency plan.
6. Conduct security awareness campaigns on physical and occupational safety.

1 Assistant Director
2 Admin Officers

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3. Human Resource

The department has made a considerable investment on Information Technology governance and that is reflecting on the number of human resources on the organisational structure. This is justified by the size of the organisation which spans out to six districts, two metros and the provincial office. Moreover the department has adopted a model of in-house development and the support and maintenance of this is done internally. The critical services of business intelligence reporting and spatial mapping is all done internally has few services that are outsourced. However it is important to mention that there are posts that are critical, vacant and not funded therefore it would be at the best interest of the department to fast pace the filling of these vacant position.

It is worth noting the pervasive nature of IT and the scarcity of skills and hence this continues to be a daunting task to retain specialised IT skills. This remains a huge challenge in the public service and the department will continue to contend with. Below is the table that shows the positions that have been filled.

Table 14: Filled CIO Positions

	Rank / Job Title	Level	Filled/Vacant	DIRECTORATE	LOCATION
1	Systems Administrator	7	Filled	ICT Engineering	District Office: Alfred Nzo
2	Secretary	7	Filled	Chief Information Officer	Chief Directorate: Chief Information Office
3	Director: Information Technology Deputy	12	Filled	Chief Information Officer	Chief Directorate: Chief Information Office
4	Director: Chief	14	Filled	Chief Information Officer	Chief Directorate: Chief Information Office
5	Systems Administrator	7	Filled	ICT Engineering	District Office: Chris Hani
6	Director: Administration Assistant	10	Filled	Chief Information Officer	Chief Directorate: Chief Information Office
7	Director: Information Technology Deputy	12	Filled	ICT Engineering	Directorate: ICT Engineering
8	Systems Administrator	7	Filled	ICT Engineering	Directorate: ICT Engineering
9	Secretary Senior	7	Filled	ICT Engineering	Directorate: ICT Engineering
10	Administration Clerk	4	Filled	ICT Engineering	Buffalo City Area Office
11	Administrative Officer	7	Filled	ICT Engineering	Directorate: ICT Engineering
12	Director	13	Filled	ICT Engineering	Directorate: ICT Engineering
13	Systems Administrator	8	Filled	ICT Engineering	District Office: Or Tambo
14	Systems Administrator	8	Filled	ICT Engineering	District Office: Nelson Mandela: Management
15	Secretary Senior	7	Filled	ICT Engineering	Directorate: ICT Engineering
16	Network Controller	10	Filled	ICT Engineering	Directorate: ICT Engineering
17	Systems Administrator	8	Filled	ICT Engineering	District Office: Chris Hani
18	Systems Administrator	8	Filled	ICT Engineering	District Office: Alfred Nzo
19	Systems Administrator	8	Filled	ICT Engineering	Directorate: ICT Engineering
20	Director: Information Technology Deputy	12	Filled	ICT Engineering	Directorate: ICT Engineering
21	Director: Information Technology Deputy	12	Filled	ICT Engineering	Directorate: ICT Engineering
22	Director: Information Technology Deputy	12	Filled	ICT Engineering	Directorate: ICT Engineering

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23	Administrative Officer Senior	8	Filled	ICT Engineering	Directorate: ICT Engineering
24	Director: Administration Assistant	10	Filled	ICT Engineering	Directorate: ICT Engineering
25	Systems Administrator	8	Filled	System Development & Mangt	District Office: Or Tambo
26	Systems Administrator	7	Filled	ICT Engineering	Directorate: ICT Engineering
27	Systems Administrator	7	Filled	ICT Engineering	District Office: Joe Gqabi
28	Director: Information Technology Assistant	10	Filled	Management Information Service	Directorate: Management Information Services
29	Director: Information Technology Assistant	10	Filled	Management Information Service	Directorate: Management Information Services
30	Director	13	Filled	Management Information Service	Directorate: Management Information Services
31	Administration Clerk	5	Filled	Management Information Service	Directorate: Management Information Services
32	Systems Administrator	7	Filled	ICT Engineering	District Office: Nelson Mandela: Management
33	Systems Administrator	7	Filled	ICT Engineering	District Office: Or Tambo
34	Director: Information Technology Deputy	12	Filled	System Development & Mangt	Directorate: System Development & Management
35	Systems Administrator	8	Filled	System Dev & Mangt	East London Service Office.
36	Systems Administrator	8	Filled	System Dev & Mangt	District Office: Cacadu
37	Director: Administration Assistant	10	Filled	System Dev & Mangt	Directorate: System Development & Management
38	Director: Information Technology Deputy	12	Filled	System Dev & Mangt	Directorate: System Development & Management
39	Director: Information Technology Deputy	12	Filled	System Dev & Mangt	Directorate: System Development & Management
40	Director: Administration Assistant	10	Filled	System Dev & Mangt	Directorate: System Development & Management
41	Director: Information Technology Deputy	12	Filled	System Dev & Mangt	Directorate: System Development & Management
42	Network Controller	10	Filled	System Dev & Mangt	Directorate: System Development & Management
43	Director: Administration Assistant	10	Filled	System Dev & Mangt	Directorate: System Development & Management
44	Director: Information Technology Deputy	12	Filled	System Dev & Mangt	Directorate: System Development & Management
45	Systems Administrator	7	Filled	System Dev & Mangt	Directorate: System Development & Management
46	Director: Administration Assistant	10	Filled	System Dev & Mangt	Directorate: System Development & Management
47	Director: Administration Assistant	10	Filled	System Dev & Mangt	Directorate: System Development & Management
48	Director	13	Filled	System Dev & Mangt	Directorate: System Development & Management
49	Secretary	7	Filled	System Dev & Mangt	Directorate: System Development & Management

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50	Systems Administrator	7	Filled	ICT Engineering	District Office: Amatole

4.   Performance and Monitoring

Developing the IT Plan is just the beginning, the real work starts at the implementation and monitoring of the plan as it unfolds. The only way to systematically ensure the effectiveness of the plan and counter the risks that are associated with it is to monitor it continually, periodically or both. This could be done in a number of ways but the results is to provide efficiency and alignment with the departmental objectives.

The department has established and appointed ICT governance structures both at the executive and operational level. The sole mandate of these ICT governance structures is to ensure that the department leverages from the use of ICT to deliver services in an effective and efficient manner. The success in the implementation of the IT Plan hinges on the effectiveness of these governance structures. Therefore it is imperative that the sponsorship and the tone is set at the top. It is expected that ICT Governance Champion will report quarterly on the ICT governance issues to the ICT Strategic committee. The ICT Governance Champion will utilise a monitoring process method that provides a concise, all round view of CIO performance which will fit into departments monitoring system. In order to achieve this, the department shall have in place an IT BSC or other agreed monitoring process that is applicable.

In addition to these critical ICT governance structures the Office of The Presidency in collaboration with the Department for Performance Monitoring and Evaluation (DPME) have developed the Management Performance Assessment Framework and tool (MPAT). This is design to ensure improvement in the public service which in turn will improve service delivery. The Chief Information Office will utilise this MPAT tool to ensure compliance with the regulations as stipulated by DPME.

5.   IT Balance Scorecard (IT BSC)

Beginning in 1992, Kaplan and Norton wrote a series of articles which introduced the concept of the balanced scorecard. They proposed the development of a set of measures that would give top managers a fast but comprehensive view of the business. They believed that traditional financial measures needed to be supplemented with the key operational measures which determined financial success. These operational measures were to add three perspectives: customer, internal business and learning and innovation, thus creating a balance of emphasis on the desired outcomes and the means of achieving them.

In 1997, Van Grembergen and Van Bruggen adapted the traditional BSC for use by a corporate information technology department. They noted that since the IT department is an internal service provider, the perspectives should be changed accordingly. Recognizing internal users are its customers and its contribution will be considered from management's point of view, they proposed the changes in the perspectives: Corporate Contribution, Customer Orientation, Operational Excellence and Future Orientation.

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Below is the IT BSC that will be used to monitor the efficiency and effectiveness of the implementation of the IT Plan. This IT business scorecard will monitored the overall performance and conformance the CIO unit.

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Table 15: IT Plan BSC

Perspective	Factor	Performance Indicator	Actual
Organisation Contribution	– Strategic Contribution. – IT and Business alignment Achievement. – Business Value of IT Projects. – Financial Year Compliance. – Management of IT Investment	• Completion of Strategic initiatives. • Development and Approval of IT PLAN. • Business evaluation based on financial measures (ROI). • ICT Implementation of Plan. • ICT Continuity Test Results • Actual vs Budgeted expenses • Cost recovery vs Expenses	
Customer Satisfaction	– Customer satisfaction. – IT/ Business partnership – Application/Development performance. – Service Level Agreement.	• Annual Customer survey. • Frequency of IT Steering Committee Meetings. • Business involvement in developing new applications. • Delivery of systems to customer expectations: Quality, Cost and Time. • % of Applications and operations services meeting service level targets for availability and performance	
Operational Excellence	– Process excellence. – Responsiveness. – Backlog Management and Aging. – Security and safely.	• Governance maturity level rating. • System time to respond • Call log response time. • #equipment that is outdated. • Absence of major issues in Internal/External audit reports. • Absence of major, unrecoverable failures.	
Future Orientation	– Service Capability improvement. – Staff Management improvement. – Emerging Technology Research. – Enterprise Architecture evolution.	• Internal process improvement. • Technology renewal. • Professional development. • Percent of work done by contractors. • Percent of staff completed PDP's. • Percent of IT budget allocated to research of new and updated technologies. • Development and Approval of EAP. • System adherence to EAP and standards.	

CHAPTER 6: ICT SOURCING MODEL

1.   Introduction

Information Communication Technology (ICT) is a strategic enabler in all spectrum of business in the modern world. Today the efficiency of any institution or organization, whether it is private or public, depends on how it embraces the use of technology in the daily operations and also render services to its customers. The business success of any institution or organization is how cost effectively it is using the available modern technology for its operations and services. The ICT is fast growing and the world business is under extreme pressure to embrace the fast moving and costly technology to remain in the mainstream business and to avoid exclusion, closure and underdevelopment. Hence, the need for suitable and viable sourcing model is necessary for any institution or organization to implement its IT Plan to make the institution/organization's business become cost effective.

2.   Background

There are two school of thoughts in the sourcing of ICT in business; one being fully outsourced and the other being a hybrid. The private sector business mainly prefer outsourced model of ICT as they scale down the cost of ICT to their customers. But the public sectors in most developing and underdeveloped countries prefer hybrid model, depends on how cheaper the availability of skills and technology, to prevent the escalation of administrative cost of their operations and services. Prior to 1998, the South African public service did not have a well-defined sourcing model for ICT. But in 1998, the Presidential Review Commission Report has recommended an agency based ICT sourcing model for the Public Service and as a result, State Information Technology Agency Act, No. 88 of 1998 promulgated which resulted in the establishment of State Information Technology Agency (SITA) for sourcing ICT functions and services for all Government Departments. The first Act No.88 of 1998 was amended as State Information Technology Act No.38 of 2002 which came with the amendment of "must" and "May" functions for the Government Departments that can source from the agency. With the above amendment of the Act, the Government Departments have started outsourcing its ICT functions and services to SITA through Incorporation Agreements. The Department of Social Development has also outsourced all functions and services except planning, management and administration of ICT to SITA in 2002 by signing and Incorporation Agreement. The department continued with this Incorporation Agreement with SITA till 2011. But, due to cost escalation of ICT services and also for the desire of the Department to contain ICT cost, the Department came-up with a hybrid model of ICT sourcing through which Department started taking over of many functions/services from SITA and started rendering them internally by developing internal capacity. The introduction of hybrid model has yielded huge cost savings though it has its own known challenges. The implementation of IT Plan in this Department will be done through the Hybrid ICT Sourcing.

3.   Hybrid Model Of ICT Sourcing

ICT Business	Service	Description	Sourcing
ICT, Management, Governance	1 ICT Strategic and Operational Planning and Management	This includes; Strategic Planning including IT Plan, Annual Performance Planning, Operational Planning, monitoring of plans and the management of Departmental ICT functions and services.	ECDSD Internal
	2 ICT Governance	This includes;	
	2.1 Development of Corporate ICT Governance Framework	Development of Corporate ICT Governance Framework in line with the DPSA requirement.	ECDSD Internal
	2.2 Compliance Auditing on Corporate ICT Governance Framework	Quarterly and annual compliance audit on Corporate ICT Governance Framework.	ECDSD Internal
	2.3 Governance policy and Procedure Development	Development of practical and maintainable policies, procedures and plans to guide the ECDSD and its users in the implementation of Governance framework.	ECDSD Internal
	2.4 ICT Maturity Audit	Department sets annual target for ICT maturity and yearly audit is conducted to assess the maturity level by using COBIT 5.1 tool.	ECDSD Internal
Hosting Mainframe Services – Transversal Business Systems	1 Labour and Facility Management	Technical support services, operations and quality management that includes the followings;	
	1.1 Technical Support Services	Includes system performance and tuning, diagnostics and problem resolution, installation of fixes, software optimization, research and development, backup and recovery, standards and procedures, capacity planning information and ensuring availability. Following areas are included in these services:	
	1.1.1 System Software Support(Refers to Persal and BAS):	This applies to all mainframe software installation, maintenance and customization of the operating system and all associated products.	SITA via Provincial Treasury
	1.1.2 Database Administration(Refers to Persal and BAS)	This includes; installation, maintenance and customization of the operating system and all associated products.	SITA
	1.1.3 Disk Space Management Services	Support, control and management of installed disk space and includes naming standards, usage standards, archiving of files when required and the optimization of disk space usage.	SITA
	1.1.4 Performance Evaluation, Hardware and Software Audits and Tuning	Includes the collection of statistics, analysis of statistics, customization of system and database management parameters, hardware and software audits and the provision of management information.	SITA
	1.2 Operations Services	These services include;	

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	1.2.1 Application Coordination	The planning and control of all production runs, the administration and coordination of Job schedules, execution of task schedules, monitoring to ensure successful completion, rescheduling, reporting, tuning, maintenance and customization of the scheduling software.	SITA
	1.2.2 Operating functions	This includes; effective running of applications according to schedules and relevant operations manuals, monitoring and problem prevention and referral to the Service Desk.	SITA
	1.2.3 Media Management	This includes; quality assurance and validation of output and compliance with security regulations.	SITA
	1.2.4 Computer Resource Usage and Information Management	This includes; billing, resource usage and capacity management statistics.	SITA
	1.2.5 Configuration Management	The coordination control for all hardware planning and coordination of installations and environmental management.	SITA
	1.2.6 Capacity Planning	This includes; capacity planning, bench marking, reporting and providing assurance that the financial expenses related to data processing equipment are scientifically determined and motivated.	SITA
	1.3 Quality Management	These services include;	
	1.3.1 Standards and procedures	Compiling and maintaining emergency procedures, security policy, general administrative policy, ISO 9001 procedures and facility operational procedures.	SITA
	1.3.2 Audit Service	Continual monitoring of the mainframe facilities which certify compliance with prescribed operating standards, accuracy of operating statistics and reporting, risk analysis, data security, disaster recovery and contingency planning and quality assurance of all procedures.	SITA
	1.3.3 Specialised services	This includes; management of contracted mainframe services; problem management, risk management, contingency planning and configuration control.	SITA
	2 Software License Procurement and Management	This includes;	
	2.1 Procurement and management of all software licenses and software maintenance agreements	Applicable to all software in the mainframe environment applications.	SITA
	3 Hardware Maintenance Service.	This includes;	
	3.1 Preventative and corrective maintenance of the hardware and peripheral devices in the date centre environment.	This includes; computer equipment and directly coupled peripheral devices but excludes the front-end processors and related network equipment and infrastructure.	SITA
	4 Printing Services	This includes high volume printing, impact printing, binding/bursting, distribution and courier service, one-stop mailing, packaging, form design and image scanning and printing generated by means of magnetic media, receiving and	SITA

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		dispatching of tapes, printouts and schedules.	
	5 Hosting/Housing Services	This includes; hosting of applications and housing of servers for customers.	SITA
	6 Disaster Recovery Planning and Implementation Service	This includes; risk analysis, compilation and implementation of disaster recovery plans and off-site storage of backup media	SITA
Application Projects – Transversal Applications	The provision of business consulting, and IT/IS strategy services to acquire, develop and maintain all transversal applications developed or CITS(Commercial Off The Shelf) products acquired as an application.	This includes; Information systems planning, Systems Development, IS Procurement, Systems Maintenance, Technical support, Software Development, Programme Management, Project management, Systems engineering, Business Analysis, Architecture Support, Systems Integration and Application Software Maintenance.	SITA Via Provincial Treasury
Application Projects – Departmental Applications	The provision of business consulting, and IT/IS strategy services to acquire, develop and maintain all Departmental applications developed or COTS(Commercial Off The Shelf) products acquired as an application.	This includes; Information systems planning, Systems Development, IS Procurement, Systems Maintenance, Database administration, Technical support, Software Development, Programme Management, Project management, Systems engineering, Business Analysis, Architecture Support, Systems Integration and Application Software Maintenance. This also includes; departmental website and GIS	ECDSD Internal
Network Technical Services (Local, Wide and Storage Area Networks)	1. Distributed Services and Support	This includes;	
	1.1 The availability, reliability and Performance of De-centralised Systems.	The De-centralised systems, in this context, can be defined as:- "Decentralised hardware, including Storage Area Networks, servers, workstations, peripherals and LAN infrastructure as well as de-centralised software, including operating systems, network operating systems, desktop applications, groupware and related tools. The services include;	
	1.1.1 Infrastructure Integration Services	Planning and development services rendered to ensure reliability of de-centralised infrastructure; technical feasibility and compatibility and managing of de-centralised infrastructure across the entire life cycle. The services in this regard include;	
	1.1.1.1 Operations Architecture Planning and Support		ECDSD Internal
	1.1.1.2 ; Infrastructure Implementation Project Planning, Coordination and execution pertaining to the deployment of infrastructure and applications;		ECDSD Internal
	1.1.1.3 Operation integration tests and evaluations testing of hardware and software to ensure integration with client IT infrastructure, IS and policy advice and research new technologies		ECDSD Internal
	1.1.1.4 Infrastructure Configuration Management that includes;		ECDSD Internal

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		Maintain configuration databases of client hardware and software.	
	1.1.2 Operations Service	Continuous operations are performed to ensure controlled access and integrity of de-centralised systems; reliability and performance of de-centralised systems; and a secure de-centralised environment. The services include;	
	1.1.2.1 System Maintenance	It includes; maintenance, administration and monitoring activities to ensure integrity and availability of de-centralised infrastructure components, especially file servers.	ECDSD Internal
	1.1.2.2 User and Security Administration	This includes; Register and maintain users, groups, and decentralized hardware components, enabling user accessibility to computing resources, and maintaining a secure decentralized computing environment.	ECDSD Internal
	1.1.2.3 Fault Resolution	This includes; all activities related to providing telephonic, remote and on-site support on applications residing on workstations and file servers which are connected to LAN's.	ECDSD Internal
	1.1.2.4 IT Continuity	To ensure data loss is eliminated and contingency plans exists for continuation of de-centralised computing activities in the event of disaster.	ECDSD Internal
	2 Operation Support	All activities related to, and enabling an operations service.	ECDSD Internal
	3 Networking(WAN & SAN)	The rendering of a reliable geographically distributed Network Service to meet information technology objectives, i.e. to effectively and efficiently provide, maintain, support and operate an integrated data, voice and video network service for the Department. The services include;	
	3.1 Network planning and design	Planning, design, development, sourcing and implementation on network infrastructure for ECDSD	ECDSD and SITA
	3.2 Consultancy	Technical advice, applied research and technology testing as well as involvement in projects for consolidating and standardization of network entities.	ECDSD and SITA
	3.3 Network Operations Management	The management of the network infrastructure, establishment and maintaining of network-related policies, procedures and standards and maintaining backups of the software configuration of network entities and a disaster recovery procedure.	ECDSD and SITA
	3.4 Network Security and Systems Management	Planning, design, development, sourcing, implementation and maintenance of systems required to manage the network environment and to ensure a secure network environment	ECDSD and SITA
	3.5 Network field support	Ensuring availability and performance of the network service through problem management and disaster.	ECDSD and SITA
	3.6 Network Services Support	This includes; The maintenance of management information regarding network performance and problem escalation and resolution, configuration management, data line accounting,	ECDSD and SITA

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		network related billing and accounting, quality assurance an all network entities, software licensing and network related contract negotiations and administration.	
	3.7 Network Support and Maintenance	Network support and maintenance including hardware, software and other facilities related to the network infrastructure.	
Training and Support Services (Functional Application Training and Support Services)	1 Implementation	The involvement of application services personnel throughout the application systems development life cycle, from the planning phase to the after implementation audit.	ECDSD Internal for Departmental Systems Provincial Treasury on Transversal systems
	2 Training	Training of the users of the functional application or complete off the shelf systems (COTS). This can be continuation training that is a specific request by the system owner or implementation training during the development or after acquiring new applications or COTS systems.	ECDSD Internal for Departmental Systems Provincial Treasury on Transversal systems
	3 Functional Support	Those services that are rendered to the client, to ensure that the application systems are fully utilized within the framework of the client's functional business.	ECDSD Internal for Departmental Systems, SITA via Provincial Treasury on Transversal systems
Information Systems Security	1 Planning workshop	Workshop with heads of business units to ascertain services, disciplines and processes and the environment.	ECDSD internal
	2 Vulnerability Assessment	Determine critical business areas and assets and analyse the risks/threats; assessment of network, devices and servers, penetration testing and offensive monitoring.	Outsourced to the Service Provider of Internal Audit
	3 ICT Risk profiling	This includes; Identification of strategic and operational ICT risks, current controls, development of risk mitigation plan with action controls, implementation of controls, monitoring the implementation of controls and auditing.	ECDSD internal
	4 Information Security Framework Development	Developing a security framework for the ECDSD, specifying requirements of hardware platforms, network configuration and systems software. This also specifies current and future IT development acquisition.	ECDSD internal
	5 Information Security User Awareness	Sessions and workshops to create awareness amongst users and management about information security threats and how to safeguard IT assets against abuse.	ECDSD internal
	6 Information Security Policy and Procedures Development	Development of practical and maintainable policies, procedures and plans to guide the ECDSD and its users in the implementation of information security.	ECDSD internal

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	7 Information Security Training	Training of users and management in the correct use of IT facilities and the policies, standards and procedures, to minimize possible security risks and breaches.	ECDSD internal
	8 Content Security	Detection and prevention of malicious code on file servers, workstation and e-mail, internet and e-mail content filtering.	ECDSD internal
	9 Access Control on Monitoring	Application of encryption, Public Keys Infrastructure (PKI) and intrusion detection to control access to systems and information. Monitoring of the network, devices, servers and workstations to ensure compliance with policies, standards and procedures.	ECDSD and SITA
Management Information Services	1 Data warehousing	This includes;	ECDSD internal
	2 Business Intelligence and Management Reporting Services.	This includes;	ECDSD internal

4. Challenges Of Hybrid Model Of ICT Sourcing

The Department of Social Development, Eastern Cape, is one of the few Departments in South Africa, which has developed internal capacity to implement its IT Plan to support the business. As mentioned earlier, the Department adopted the hybrid model approach of ICT sourcing due to escalation of ICT costs and also to contain the departmental administrative expenditure to direct funding to core functions of the Department. The hybrid model in this Departments has the following challenges;

- The attraction and retention of correct and suitable skills needed for the implementation of IT Plan in this Department is very difficult as the remunerative system of the public service is not flexible enough to do so as in the case of private sector. As a result, the ICT skills' turnover rate in the Department is high and the model is always challenged.
- There is severe scarcity of specialized and experienced ICT skills in the Easter Cape Province and as a result the sustainability of the hybrid model is always threatened.
- Most of the ICT functions are mission critical and can make the Department stand still if skilled resources are not always available on the site. The unionization of ICT personnel can result in abnormal and extraordinary bargaining power during the period of labour actions.
- The modern trend is enterprise systems architecture and this field is the monopoly of the corporate companies. There is a grave need of business process automation in this Department as most of the business processes in this Department are still non-automated. The hybrid model that is applied in the business application projects always delay the automation of business processes and it affects its sustainability.

5. Conclusion

Despite of all the above challenges, the Department will continue with the hybrid option to implement the IT Plan as it is best suited to counter on the limited financial resources that is available in our disposal. The innovative approaches, benchmarking and learning from best practices of the similar model in other organizational environment can find solutions to the above mentioned challenges.

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ANNEXURE A: ECDSD SERVICES VALUE CHAIN

Services Value Chain

Level 1

Administration

Administration

- Office of the MEC
  - Provide Political & Legislative Interface between Relevant Stakeholders → Provide Strategic Direction → Manage and Administrate the Department
- Corporate Management Services
  - Provides for Strategic Direction, Management and Admnistration
    - Manage Financial Services → Manage Supply Chain and Assets → Manage Human Resources → Develop Human Resources → Coordinate Special Programmes → Manage IT
    - Manage Communications and Customer Care → Manage Strategic Reports → Manage Risk And Security → Provide General Adminisatration → Provide Internal Audit
- District Development & Implementation
  - Manage Office of Head of District → Coordinate Roles for Decentralisation → Manage and Administrate District Services

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Services Value Chain

Phase

Social Welfare

Social Welfare

Render Services to Older Persons

- Design and Implement Integrated Services and Interventions for Care of Older Persons
- Render Community Based Service Center Programmes
- Conduct Registration of Care Givers for Older Persons
- Conduct Assessment, Registration and Capacity Building for Community Based Care and Support Services

Render Services to People with Disabilities

- Design and Implement Integrated Programmes and Services for People with Disabilities
- Provide Intervention Programmes and Services
- Provide Capacity Building and Support to People with Disabilities

Render Services for HIV and AIDS

- Design and Implement Integrated Community Based Programmes and Services
- Provide Intervention Programmes, Services, Prevention and Psycological Support
- Manage Capacity Building for Funded Organisations

Render Social Relief Services

- Respond to Emergency Needs in Communities affected by Disaster
- Provide Counceling and Support to Affected Individuals and Families
- Develop Care Plans for Required Interventions
- Provide Financial and Material Assistance

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Services Value Chain

Children and Families

Children and Families

- Care and Support Services to Families.
  - Render Programmes and Services → Promote Functional Families

- Child care and Protection Services
  - Design and Implement Integrated Programmes and Services → Provide for Development, Care and Protection of the Rights of Children

- ECD and Partial Care
  - Provide Early Childhood Development Services → Provide Early Childhood Development Services and Partial Care → Comply Norms and Standards → Manage ECD Registration → Manage Funding of ECD Sites

- Child and Youth Care Centers
  - Provide Alternative Care and Support → Provide Capacity Building

- Community Based Care Services for Children
  - Provide Protection, Care and Support to Vulnerable Children → Registration of Children in Child Headed Households → Public Awareness on OVCs and Community Based Services

Services Value Chain

Level 1

Restorative Services

Restorative Services

Crime Prevention and Support Services

Develop and Implement Social Crime Prevention Programmes

Provide Probation Services

Victim Empowerment

Design and Implement Integrated Programmes and Services

Provide Support, Care and Empowerment to Victims

Substance Abuse, Prevention and Rehabilitation

Design and Implement Integrated Services

Provide Support for Substance Abuse, Prevention, Treatment and Rehabilitation

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Services Value Chain

Level 1

Services Value Chain

Level 1

Research and Development

Research and Development

Community Based Research and Planning Services

Render Household and Community Profiling Services

Manage Community Challenges

Population Policy Promotion

Promote the Implementation of Population Policy

Render Capacity Building

Conduct Research Projects and Produce Demographic Profiles

Youth Development Services

Render Youth Development Services

Render Support Services to Youth Development Structures

Render Youth Entrepreneurship Development Programme

Women Development Services

Render Women Empowerment Programmes

Render Women Community Mobilization Programmes

Render Women Livelihood Initiatives and Economic Empowerment Programmes