The Role of ICT in Promoting Local Economic Development and Poverty Reduction
‘The Zimbabwean Experience’

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Presentation Outline

1. Laying the Foundation for ICTs Development
2. ICT Challenges in African countries
3. e-Government
4. e-Governance
5. Education and Training (Capacity Building)
6. ICT Support to Economic Development and Poverty Reduction
7. Case Study 1 – ZARNet
8. Case Study 2 – Afrosoft Corporation
9. Case Study 3 – ICTs in Rural Districts
10. Case Study 4 – e-Hurudza (Electronic Farm Management Software Package)
Definition

Information and Communication Technologies (ICTs)

- ICTs is a generic term referring to technologies that are used for collecting, storing, editing and passing on (communicating) information in various forms.
Laying a Firm Foundation for ICTs Development

1. e-Readiness Survey
2. Guiding Principles –
3. Vision and Mission
4. Status of ICTs – acknowledge existing relevant institutions, etc.
5. ICT Policy Development – process / objectives
6. Regulatory Mechanism
7. ICT Champions – at what level
8. Investment in ICT
9. Management and monitoring of ICT development
10. ICT as an enabler / crosscutting
Vision & Mission

VISION

-To transform Zimbabwe into a knowledge based society by the year 2020.

MISSION

-To accelerate the development and application of ICTs in support of sustainable socio-economic growth and development in Zimbabwe.
GUIDING PRINCIPLES

Derived from:-

- Vision 2020
- The National Economic Recovery Programme
- Zimbabwe Millennium Development Goals (2005)
Purpose of ICTs Policy

- To provide strategic direction and guidance for sustainable national development through systematic application of ICTs in a country.

This is achieved through the following objectives:
Policy Objectives

- Ensure provision and maintenance of infrastructural facilities necessary for ICTs development, such as reliable supply of electricity, telecommunications and transport.
- Promote and support the systematic, relevant and sustainable development of ICTs.
- Embark on extensive educational and training programmes to provide adequate supply of qualified ICTs personnel and knowledge workers in all sectors.
- Establish appropriate legal and regulatory framework to support ICTs
Policy Objectives (cont …)

- Establish structures for effective implementation of ICTs strategies.
- Establish institutional mechanisms and procedures for determining sectoral application priorities; and
- Encourage the development and use of and ensure equitable access to benefits offered by ICTs across gender, youths, the disabled and the elderly.
ICTs Challenges in African countries

- Inadequate communications & power infrastructure
- Shortage of ICTs facilities & ICTs skills
- Inadequate institutional arrangements
- Limited financial resources
- Inadequate public private partnership
- Limited data management capacity
- Inadequate horizontal and vertical communication
- Inadequate bandwidth nationally and on the Gateway
e-Government
e-Government: An Overview

e-Government uses ICTs to provide, online:

- Convenient access to government information and services.
- Delivery of public services.
- Efficient and effective method of conducting business transactions.
e-Government

As a Policy Government should:-


2. Ensure that every ministry/department develops and manages computerised information systems.

3. Ensure that every Government Ministry and Parastatal has an updated informative and interactive website.
e-Government

4. Create an e-Government Agency to coordinate and rationalise efforts by government entities working on ICTs.

5. Make e-Government services accessible to all citizens.


Govt to move from: *ICT-aware to an ICT-enabled govt.*
e-Governance
e-Governance

e-Governance includes the use of ICTs in the following areas:

- Participation in the decision making processes by the citizens, e.g. formulation and implementation of economic and social policies,
- Making Government more accountable, transparent and effective,
- Facilitating the electoral processes, and
- Maintenance of law and order.
e-Governance

As Policy!

1. Promote the principle of Universal Access.

2. Develop on-line projects that provide information on governance at and across all levels of society.

3. Strengthen governance and legal framework that promotes participatory democracy and accountability.
e-Education and Training
e-Education and Training

*Policy Thrust*

1. Provide equitable access to ICTs enabled education and training in all parts of the country, including the disadvantaged communities.

2. Facilitate acquisition of basic, applicable and affordable ICTs equipment.

3. Promote stakeholder participation and partnerships.

4. Promote training in software development, provision of ICTs services and ICTs resources development.
e-Education and Training
(cont ...)

7. Standardise ICTs in the education sector.
8. Embed ICTs literacy in the pedagogy of our schools, colleges and universities.
9. Encourage, promote and apply research and development in ICTs in all sectors of the economy.
Areas of Impact

• ALL areas of society
• ICT sector
ICT Support to Economic Development and Poverty Reduction
Build an ICT Sector

- Establish an environment that encourages networking of services and applications;
- Promote e-commerce and trade promotion programmes for goods and services;
- Promote Internet access to exchange and access digital content;
- Establish e-government;
- Promote e-education and on-line services;
- Strengthen network security;
- Build and develop e-society and ICT human resources.
- Build the necessary infrastructure and capacities.
ICT Sector

Policy Thrust

1. Develop and improve ICTs infrastructure for all sectors of the economy (communications, electricity and transport).

2. Encourage full utilization of existing communications infrastructure to reduce resource wastage.

3. Implement an integrated and equitable framework for accelerated ICTs development and uptake.
ICTs Sector

Policy Thrust (cont …)

4. Increase bandwidth on the national backbone and international gateway(s) systems to enhance speed and efficiency of operations.

5. Develop supportive and enabling infrastructure to ensure equitable access to ICTs by all citizens including disadvantaged groups and rural communities.

6. Promote local production of ICTs products to ensure relevance of content and use of appropriate technologies that meet international standards.
ICTs Sector

Policy Thrust (cont …)

7. Establish institutional mechanisms to co-ordinate inter-organisational planning, policy-making and implementation of strategies to develop ICTs taking into account the convergence of broadcasting, telecommunications and on-line computer services.

8. Implement measures to develop and retain skilled human resources in the ICTs sector.

9. Rationalise the ICTs tariff structure to make ICTs more affordable and accessible.
ICTs Sector

Policy Thrust (cont..)

10. Introduce and enforce stringent quality of service standards in the provision of ICTs.

11. Create a conducive environment for investment through PPPs in the ICTs sector.

12. Promote local R and D software and hardware relevant to all sectors of the economy.

13. Promote awareness and use of ICTs.
Case Study - 1
ZARNet

Impact areas:

• e-Literacy
• Communications & Networking
• Information resources
• e-Enabled applications
• Content access
Case Study - ZARNet

**Mandate:** to promote ICTs and information age literacy and facilitate Internet and e-mail connectivity primarily to the academic and research institutions, schools, Govt Ministries & Departments and other disadvantaged communities throughout Zimbabwe.
1. Establishing regional Internet access nodes to benefit surrounding communities.

2. This reduces telephone bills, increases speed. 
   **Beneficiaries:** local Govt, ministry PoP, community.

3. Continually working to ensure adequate bandwidth to the Internet backbone.

4. Working on adding value to Internet services:
   - databases,
   - Linkages with other content providers.
   - Collaborative research
   - Discussion Forums.

5. Training on ICTs
   Offer training and re-training to current and future users on the benefits, maintenance, management and efficient use of the Internet and related equipment.

6. Constant updating of Anti-spam, Antivirus and Anti-relay packages to add quality and improve security and delivery of services to clients.
Case Study – ZARNet (cont.)

**Key Strategies**

1. Provide services to communities through Local Government District Offices.

2. Service **communities** through connectivity to schools, etc.

3. Intensify training outside urban areas.

4. Promote ICTs through exhibitions and gatherings of specific groups.
Case Study – ZARNet (cont..)

5. Establish regional internet access nodes to benefit clients in surrounding areas.

6. Partner with content and other developers of e-enabled applications.
Case Study – 2
Afrosoft Corporation Ltd.

Impact areas:

• e-Government
• e-Literacy
• Communication
Case Study - Afrosoft

Company Focus

1. Development of Software solutions for the financial, commercial and public sectors.
2. Have developed the Local Authorities Software System – the AfroPack
Case Study - Afrosoft

**Accounting Packages which comprises:**

- Billing Module.
- Receipting Module.
- Creditors’ Module.
- Cash Book Module.
- Fixed Assets Module.
- General Ledger Module.
- Accounting Reports.

The Accounting Package also has an electronic transaction module which enables clients to pay their bills by either e-mail or cell phone.

AfroPack is now used by several Local Authorities in the country.
Case Study – 3
ICTs in Rural Districts

Impact areas

• e-Literacy
• Poverty reduction –
• Empowerment
• Communication links
Case Study – ICTs in Rural Districts

Project Focus

1. Use ICTs to benefit rural Districts of Mangwe, Bulilima and Plumtree.

2. Information centres established at strategic rural centres for the benefit of the community.

3. NUST sourced computers and provided training to rural beneficiaries (teachers, students and parents).

4. Information gathered by youths who processed it and developed web-based content, newsletters for the benefit of the communities.
Case Study – ICTs in Rural Districts

Project Objectives

1. To establish information centres at strategic rural centres to enhance the abilities of communities to access information, manage local level information and disseminate this information to external communities;

2. To introduce practical computer courses in rural schools to improve computer literacy of students, teachers and parents;

3. To enhance informed decision and policy making by Rural District Councils through computerizing the management of information at district centres.
Case Study – ICTs in Rural Districts

Project long term benefits

1. Provide linkages with relatives working in neighbouring countries or abroad through the internet and e-mail.
2. Local small scale farmers have access to information about market prices thus saving on time and travel costs.
3. e-Literacy level uplifted.
4. Employment created especially for the youths.
5. Rural communities linked to the information highway and contribute to the information society.

6. Rural districts management and village leadership empowered in decision making and utilisation of local resources.
## Structures and functions of local level Information and Knowledge Management System

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<tr>
<th>LEVEL</th>
<th>STRUCTURE</th>
<th>FUNCTIONS</th>
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| District| District Information Management Unit | Manage the District database  
Update the District Web site  
Download information from internet into District Newsletter  
Manage Information Workers  
Produce and distribute the District Newsletter |
| Ward    | Ward Information Centre          | Management the Ward data base  
Feed into District Data base  
Disseminate information into the Ward |
| Village | Knowledge Workers                | Contribute local stories to Newsletter and Web page, Disseminate information at local level, Provide Secretariat support to local level governance (including traditional leaders) and planning structures. |
Case Study – 4
e-Hurudza (Electronic Farm Management Software Package)

**Impacts on:**

- *Empowerment*
- *Poverty reduction*
- *Economic development*
- *Communication links*
Case Study – e-Hurudza

Programme focus:
- Electronic Farm Management Software Solution developed by a local company

Features:
- Agricultural information for all regions
- Tutorial on how to grow crops specific to your region including land preparation.
- ALL input requirements i.e. seed, fertilizers, insecticide/chemicals, manpower, when to plant seed (monitored), expected yield per hectare (irrigation or rainfall)
Case Study – e-Hurudza

- Programme has equally comprehensive information for livestock.

**Resources required**

- A Computer and printer & relevant infrastructure
- e-Literacy (how to operate a PC)
- Internet access optional
- Networking – input suppliers, product market and prices

*Addressing poverty through economic empowerment*
Useful Comparisons

- e-Government in India cascaded to district and village levels e.g. State of Kerala

- Information Centres as focal points for training, payment of bills, local data sources, communications access, etc.
With ICTs there is real hope for change!

Thank you

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