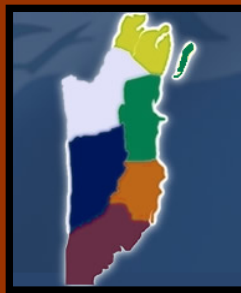


The Government of Belize



BENCHMARKING AND E-READINESS ASSESSMENT WORKSHOP

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A Partnership between the Government of Belize and The Commonwealth Secretariat



BELIZE BENCHMARKING AND e-READINESS ASSESSMENT WORKSHOP

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- A Benchmarking Assessment Report
- B e-Readiness Assessment Questionnaire



OVERVIEW

The Government of the Belize supported by the Commonwealth Secretariat has embarked on a process to develop a National ICT Strategic Plan for the Belize. Five focus areas were identified for ICT development - ICT infrastructure, the legal and regulatory framework, human resource development, industry and government. These will form the basis for the development of the National Strategy.

Before any detailed strategic planning can take place, the current state of ICT diffusion on a national and global scale must be clearly understood. A Benchmarking study and e-Readiness assessment were commissioned to achieve this objective. The Benchmarking study uses secondary data to compare the level of ICT development in Belize to seven other comparator countries, while the e-Readiness analysis looks at the current state of preparedness using primary data collected through a survey questionnaire. They are both useful tools for assessing the country's 'starting point' in terms of ICT.

This exercise accomplished the objective of determining the current state by analyzing the level of ICT development in Belize on a national scale through the e-Readiness assessment, as well as on a global scale, by using a benchmarking approach. The Benchmarking and e-Readiness Assessment workshop was convened primarily to review the Benchmarking and e-Readiness findings and to identify possible areas for development which will be further analysed during the strategic planning process. The findings of these assessments are reviewed in this document and the complete reports are attached as Appendix A and B.

The development of the National Strategic Plan is scheduled to continue into the first quarter of next year, and a framework for the ICT strategic planning and development process has been discussed and agreed upon. A series of recommendations and next steps are discussed in the final section of this report. These include a few proposed "Quick Wins" that are designed to provide early successes and build momentum for the implementation of the National Plan.



BENCHMARKING ICT IN BELIZE

The benchmarking assessment compares the level of ICT development in Belize to seven other countries:

- Barbados
- Costa Rica
- Malta
- Mauritius
- Panama
- Singapore
- Trinidad and Tobago

Secondary data based on a wide range of core ICT measurement indicators were used for the assessment. Assessments were conducted around the five key areas of ICT development:

- ICT Infrastructure
- Legal and Regulatory Framework
- Human Resource Development
- Industry
- Government

Data was sourced from reliable and reputable international sources such as the World Economic Forum (WEF), the International Telecommunications Union (ITU) and the United Nations (UN). Since some of these bodies did not have information available for Belize, data from the e-readiness analysis, and from an independent survey was conducted during the workshop were included in a few instances to eliminate gaps in the data and to provide a more holistic and meaningful understand of the state of ICT development in Belize.

The benchmarking assessment is intended to inform the development of the National ICT Strategic Plan. It was a useful tool during the workshop and was the basis for much lively discussion concerning the opportunities for growth and development of ICT in Belize. The key findings of the assessment are outlined below:

- Belize appears to be in the initial stages of ICT development, placing in the latter half of the rankings for most of the international ICT indicators
- The country's has an adequate telecommunications infrastructure, but access and usage is substantially lower than the other countries assessed



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- More than forty percent of the population are mobile subscribers, greater than that of Costa Rica and Panama, with mobile uptake exceeding land lines at a rate for four to one
- Low literacy and school enrolment rates are having a negative impact on the development of human capital and skills required to promote and sustain ICT usage development on a national scale
- ICT development in industry is lagging behind in most areas, with very few businesses utilizing the internet to buy and sell goods and services
- Law making bodies in Belize are very efficient at drafting and passing laws but are not as effective in the implementation and enforcement of laws related to ICT such as digital signatures, e-commerce and consumer protection
- Research and innovation in the public or private sector is at a minimum and is hampered by a lack of venture capital availability
- The use of ICT in the delivery of government services is on the rise in Belize, with the majority of government websites providing some basic information concerning key services

For a more detailed review of the findings, the complete benchmarking report is attached as Appendix A to this report.



THE CURRENT STATE OF E-READINESS

The e-Readiness Assessment analyzed the preparedness of Belize to participate in the global information society and digital economy. The level of e-Readiness was gauged by assessing maturity across a series of Information and Communications Technology (ICT) indicators that are considered key in facilitating national development and delivering broad ICT-related benefits.

The e-Readiness Assessment differs from the benchmarking analysis as it is based on primary data, collected at source and not on secondary data collected by international bodies. It also focuses exclusively on Belize and does not perform any comparisons with other countries. Primary data provides information on the country's current state of ICT development. A questionnaire was formulated and forwarded to various public and private sector institutions throughout Belize.

The assessment focused on the five areas of ICT development:

- ICT Infrastructure
- Legal and Regulatory Framework
- Human Resource Development
- Industry
- Government

An analysis of the information collected to date reveals the following findings:

ICT Infrastructure

The telecommunications infrastructure is developing. Although Internet subscription remains modest, the number of telephone users (especially mobile users) is high:

- Belize benefits from >90% national electrification - with fibre being built into all new transmission cables
- Telecommunications infrastructure continues to improve:
 - Liberalized telecommunications sector
 - 2 carrier service licenses awarded, however one license has subsequently been withdrawn
 - 36 ISP licenses have been issued
 - International and mobile rates have decreased as a result of increased competition
 - Growing network capacity with speeds up to 2Mbps
 - Access to international fibre connectivity via ARCOS1 link through Mexico



- No formal information was made available regarding ICT's at a community or household level - the following figures were gathered from interviews and from the ICT Benchmarking Assessment (i.e. secondary data from 2005/2006)
 - More than 90% of households have radios
 - Approximately 20% of households own a television
 - Approximately 40% of homes have a telephone
 - Approximately 50% of the population are cellular subscribers (150,000 subscribers)
 - Approximately 14% of the population have access to Personal Computers
 - Approximately 7% of the population are Internet subscribers (40,000 subscribers)
 - Affordability of PC's and Internet subscription is a key constraint - most use the Internet from work

Legal and Regulatory Framework

A solid legislative base is being established. Effort is now required to further accelerate implementation:

- ICT related legislation and policy frameworks exist in the areas shown below:
 - *Telecommunications Act 2002* - allows for the development of the telecommunications sector through competition.
 - *Electronic Transactions Act 2003*:
 - eliminates legal barriers to electronic communications
 - acknowledges electronic/digital signatures
 - promotes harmonization of legal rules on electronic transactions across international boundaries
 - promotes confidence in electronic transactions and enables electronic communications with government
 - provides for "Universal Service" - "to provide all Belizeans, regardless of where they reside, with reasonable access to basic telecommunications services, payphones and community telephones with due regard for cost, benefits and national priorities"
 - *Electronic Evidence Act 2003* - makes provision for the legal recognition of electronic records and facilitates the admission of electronic records into evidence in legal proceedings
 - *Copyright Act 2003* - provides Intellectual Property legislation for digital data
- The Public Utilities Commission was introduced in 2003. It is an autonomous agency with a mandate to promote fair competition and efficient market conduct within the telecommunications industry



- Strengthened/additional legislation is required in the following areas:
 - Data Protection and Privacy
 - Computer Misuse
 - Cybercrime
 - Inappropriate/undesirable content on the Internet
 - Competition legislation

Human Resources Development

Insufficient data was provided to develop a clear understanding of the level Human Resource Development with relation to ICT:

- Virtually all schools are on the national grid and have a reliable source of electricity
- The majority of primary schools, and all secondary and tertiary institutions, have telephones
- The University of Belize estimates that it has one computer for every 10 students
- High speed Internet access is provided to both the University of Belize and Galen University
- A significant number of students are undertaking tertiary level education in important ICT related fields:
 - 143 in computer related studies
 - 560 in business related studies
 - 213 in science related studies
 - 0 in Telecommunications and Network Engineering

Industry

Limited data was received with regards to ICT in Industry

- Most companies in Belize realize the importance of ICT and the Internet, however it is not currently being utilized as a business tool
- It was suggested that 40-50% of companies have computers and Internet access
- It was suggested that 40-50% of companies have static websites - but <5% of companies offer e-commerce transactions
- Some of the larger companies offer e-payment (e.g. BEL has approximately 5,000 on-line customers, Bank of Nova Scotia has approximately 2,000 on-line customers)
- BEL has implemented a customer call centre and IVR system
- Other than the Office of Governance, there appears to be no specific branch within Government that is stimulating ICT uptake and e-Commerce within the marketplace
- At this time there appears to be no/little incentives (tax/fiscal) encouraging the private sector to use ICT and e-Commerce



- There are no sector specific ICT policies at this time, e.g. Tourism, Agriculture, Financial Services, etc
- There appears to be no active ICT Association or National Computer Society at this time
- No online Government-to-Business (G2B) services are available at present
- The University of Belize is planning to establish a co-location of its ICT related campus with a high-tech park

Government

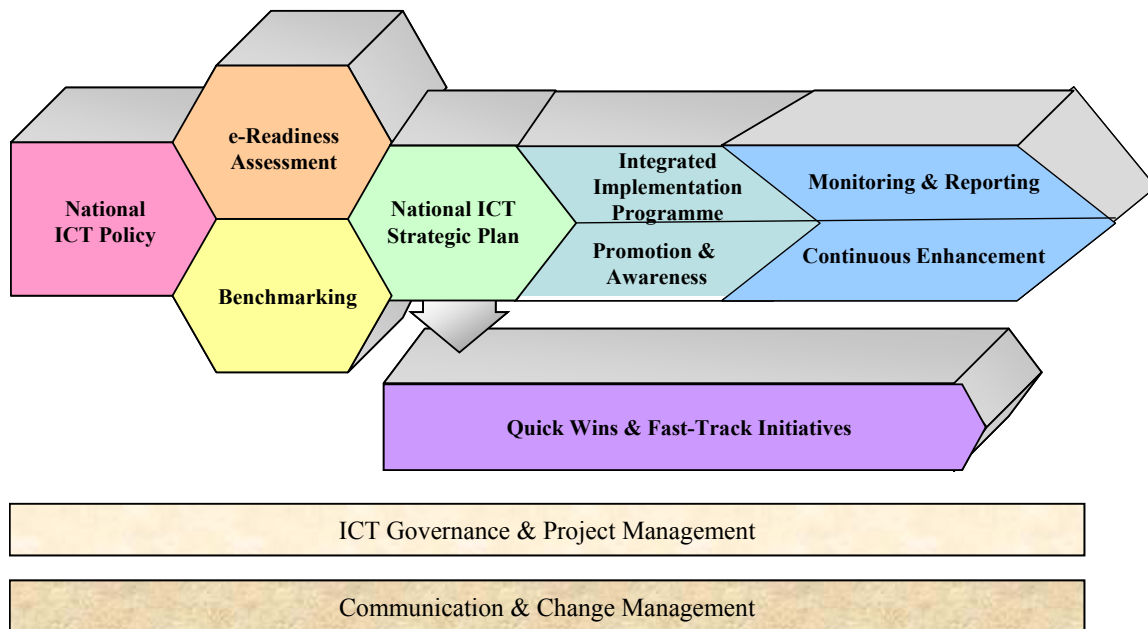
Steady progress is being made in advancing the national e-Government programme

- A formal e-Government Policy is in place - however the Policy focuses primarily on the Internet and does not incorporate the telephone channel into e-Government service delivery
- Several e-Government projects are in progress including a Government Wide Area Network and a Central Portal
- All of the eleven government ministries have a website
- Most government websites are primarily information based sites, with some downloadable application forms
- Most ministries and departments have introduced initiatives aimed at greater efficiency, effectiveness and improvement of service delivery - with the Ministry of Finance and the Ministry of Natural Resources, Local Government and the Environment at the forefront of these changes
- Most of the payroll processes have been automated with salary and deduction transfers made online directly into Public Officers bank accounts
- Some ICT and customer service training is available to civil servants
- Specific e-Government policies are limited

The e-Readiness assessment questionnaire is attached as Appendix B for further review.



STRATEGIC PLAN DEVELOPMENT FRAMEWORK



The proposed methodology for the development of the National ICT Strategic Plan for Belize is outlined in the model above. The first three steps have now been undertaken - National ICT Policy objectives, the e-Readiness Study and the Benchmarking Assessment.

The next phase involves the actual strategic planning exercise, which will focus on developing an integrated plan for the five areas of development (ICT infrastructure, the legal and regulatory framework, human resource development, industry and government). The development of the strategy will be supported, and influenced, by the findings of the e-Readiness and Benchmarking assessments.

To ensure broad stakeholder engagement, the strategic planning process will involve a number of participants from the public and private sectors, organized into “Working Groups”. The Working Groups will consider opportunities for ICT development in each of the five focus areas. The key output of the National ICT Strategy will be an integrated implementation programme that prioritizes the numerous ICT projects and looks for dependencies and commonalities across the various initiatives to ensure programme and technical alignment,



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accelerate implementation, prevent unnecessary duplication of effort and reduce cost.

The ICT Strategic Plan will also identify a number of “Quick Wins”, or fast-track initiatives, which will deliver early results and demonstrate tangible signs of progress in the early stages of implementation, building added support and enthusiasm for the ICT agenda.

An ICT governance model needs to be finalised and implemented in conjunction with the development of the Strategic Plan. In addition, project management, ongoing communication and change management activities will support the development of the ICT Strategy.



RECOMMENDED NEXT STEPS

A sound foundation has been established for the strategic planning process to begin. ICT policy objectives are clear and feature within the National Development. The ICT Benchmarking and e-Readiness reports the current state or starting point has also been review and established.

The subsequent activities over the next six months should focus on:

- Identifying key stakeholders in the public and private sectors who can make valuable contributions to the National ICT Strategic Plan
- Facilitating strategic planning working-group sessions with these stakeholders to produce documentation identifying the programmes and projects that will be contained in the Strategic Plan
- Involving UNDP in the strategy development process to assist with downstream funding requirements
- Consolidating the findings and producing the draft National ICT Strategic Plan
- Implementing a client-centric e-Government portal to coincide with the release of the National ICT Strategy

