

**SIR ARTHUR LEWIS INSTITUTE OF SOCIAL & ECONOMIC RESEARCH
UNIVERSITY OF THE WEST INDIES**

8TH ANNUAL CONFERENCE

Crisis, Chaos and Change:

Caribbean Development Challenges in the 21st Century

March 2007

SOCIAL AND ECONOMIC DEVELOPMENT: RETROSPECT AND PROSPECT

**Multilateral Organisations and Information and Communications
Technology (ICT) Sector Planning in Caribbean Economies:
Example of Trinidad and Tobago**

Peter Eversley Mitchell

Senior Manager

Information and Communications Technology Division

Ministry of Public Administration and Information

Republic of Trinidad and Tobago

February 2007

*The views expressed in this Paper are those of the author
and not necessarily of the Government of Trinidad and Tobago*

ABSTRACT

Development of the telecommunications/ICT sector in emerging economies has been viewed as one where developing countries can have a competitive advantage, through the improvement of its telecommunications infrastructure and the empowerment of its national population to use the technology for long-term benefits. The sector is also seen as one that allows developing economies to “leapfrog” into developed status given the speed at which ICT development can take place once there is a concerted and comprehensive planning framework to achieve this endeavour.

Telecommunications/ICT Sector Planning in developing countries has been influenced either wholly or in part by the reform agenda advanced by multilateral organisations such as the World Bank, United Nations Development Programme (UNDP), Inter-American Development Bank (IDB) and the International Telecommunications Union (ITU). In the example of Trinidad and Tobago, the evolution of Telecommunications/ICT Sector Planning was first, in part due to the domestic need for improvement in the telecommunications infrastructure and second, having to conform to the commitments for telecommunications liberalisation submitted to the World Trade Organisation (WTO) in 1997 and third, finding the appropriate mechanism for managing the ICT sector development agenda by the incorporation of best practice made available by the multilateral organisations, notably the IDB and the ITU.

SECTION 1: INTRODUCTION

Caribbean governments have used National Development Plans (NDPs) as an important strategic management tool to guide the process of economic management over a specifically defined period, usually five years and more. The prevailing assumption being that that economic growth and development facilitates improvements in social conditions. Sectoral Planning which are by and large subsets of the broader macro development planning framework sought to show how each of the economic sectors contribute to the national development agenda. The importance of ICT to Caribbean economies has gained momentum with the last ten years and the need for sectoral planning for ICT became critical activity on account of the economic diversification strategy that Caribbean economies were advised to pursue by the multilateral organisations and changes in the global trading arrangements as it pertained to services.

Information and Communication Technology (ICT) is a term given to the integrated use of informatics, information and communication tools and infrastructure to assist in the development of knowledge and the resulting acceleration in social and economic development (MPAI 2003). In addition, Marcelle (2004) also defines Information and Communication Technology (ICT) as a range of information and communication technologies and applications used for information sharing, networking and communication. ICTs include telephones, mobile phones, computers, radio, TV, the Internet and other new digital media. ICTs are used as end products and as intermediates. According to the World Bank, ICT consists of hardware, software, networks and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images). From these two perspectives one can see that ICT is a medium by which information is conveyed to an end-user in a cost effective manner.

Development of the telecommunications/ICT sector in emerging economies has been viewed as one where developing countries can have a competitive advantage through the improvement of its telecommunications infrastructure and the empowerment of its national population to use the technology for long-term benefits. The sector is also seen as one that allows developing economies to “leapfrog” into developed status given the speed at which ICT development can take place once there is a concerted and comprehensive planning framework to achieve this endeavour.

This paper focuses on the influence of multilateral organisations as to how the reform process should proceed and the resulting objectives to be derived. Wellenius (1992) sought to give reasons for the beginning of the telecommunications sector reform process, where he indicated that a growing number of developing country government have recognized the need to overhaul the prevailing telecommunication sector arrangements in order to mobilize more

capital for investment, improve the performance of the operating enterprises and respond to the rapidly growing pressures for better, more and more varied telecommunication services. He further added that developing countries began to adopt economic strategies including measures to liberalize trade, promote competition, deregulate financial and capital markets, reduce restrictions on foreign investment and restructure public enterprises. This gave renewed urgency to develop telecommunications as required for these broader economic reforms to be effectively implemented (Wellenius 1992).

In the context of the global perspective on the role of ICT development there is the phrase “global consensus” which has been summarised to mean that a number of modern-day technologies, particularly information and communication technologies (ICTs) have played an important role in accelerating growth and can contribute to promoting sustainable human development and eradicating poverty in developing countries. There is the opinion that the global consensus on telecommunication sector planning derives primarily from influential but technologically deterministic views of technological change and its impact on development (Marcelle 2005).

In examining the influence of the multilateral organisations in telecommunications/ICT sector planning, the paper will examine the underlying objectives of selected multilateral organisations like the World Bank, United Nations Development Programme (UNDP), World Trade Organisation (WTO), International Telecommunications Union (ITU) and the Inter-American Development Bank (IDB). The purpose is to establish the conceptual framework from which to examine to what extent these organisations impacted on policy development. To illustrate the extent of the global influence the paper will focus on looking at sector planning from a national level and the country chosen is Trinidad and Tobago, which had a history of being involved with multilateral agencies such as the International Monetary Fund and the World Bank. External forces resulting out of the economic recession of the late 1980s, as the paper will show, initially drove the reform process in Trinidad and Tobago. However the recent development of a National ICT strategy was the outcome of national consensus building as evident by the policy formulation process.

The evolution of telecommunication/ICT sector planning in Trinidad and Tobago will be view in two phases: 1989-2000 and 2000 to present. What will be shown is the distinct movement from telecommunications reform starting with the privatisation of the incumbent in 1989 to ICT development from 2000, which saw the deep involvement of multilateral development institutions notably, the Inter-American Development Bank.

SECTION 2: MULTILATERAL ORGANISATIONS

Introduction

On account of prevailing new strategies for achieving socio-economic development through economic diversification, Tipson and Frittelli (2003) noted that International Organisations have been promoting the formulation of national ICT strategic plans for a number of years as a way of focusing limited resources and capitalizing on potential synergies. In addition they mentioned that both the International Telecommunications Union (ITU) and the United Nations Development Programme (UNDP) have had specialized staff to assist countries in developing these strategies. The Inter-American Development Bank (IDB) has also over the last few years developed the necessary capacity to provide technical and financial assistance to their Member Countries to formulate national ICT plans. Trinidad and Tobago is one such country where the IDB has been a partner in ICT sector planning.

World Bank

The World Bank has been involved in telecommunications sector reform since the mid-1960s. Initially, the Bank focused on financing investment to modernise and expand physical plant and this included some strengthening of the operating enterprises and improving relations with government. Wellenius observed that the Bank's assistance broadened as time passed, for example in the 1970s broader efforts were made to strengthen the telecommunications enterprises' organisation and management. By the 1980s the Bank according to Wellenius, further expanded the scope of its support for telecommunications, emphasizing sectoral reforms including, where appropriate, the privatization of state telecommunications enterprises.

The rationale for the World Bank's involvement in telecommunications has been that telecommunications:

- has become a strategic investment for economic development, is a critical factor for the success of many bank operations, and results in efficiency gains throughout the economy;
- requires a comprehensive approach to sector policy linked to overall country economic strategy, which commercial and bilateral organisations are either inclined nor equipped to handle;
- can lead cross-sectoral policy reforms, public sector restructuring and regulatory development;

- can be essential component of private sector development programmes; and
- offers tangible results and low project risks.

Wellenius mentioned that the thrust of the World Bank is that sector development will largely hinge on building up

- (i) diversity of supply and competition;
- (ii) participation of private capital and enterprise; and
- (iii) effective regulations.

An interesting comment was made by Wellenius indicating where there is a wide range of solutions for sectoral reform that can be effective and the Bank can help governments examine policy options, assess their merits in terms of sectoral objectives, identify the necessary conditions for successful implementation and develop reform programmes that are consistent with country economic and political situations and with world market outlooks. Some may be of the view that the World Bank seeks to impose a pre-determined model for sectoral reform on developing countries; certainly, there have been instances where this perception may be valid in other economic reform programmes.

The World Bank, like most other international telecommunications-related organisation began to broaden its role from telecommunications to ICT essentially because they viewed ICT as being central to meeting both World Bank Strategic Directions Framework priorities, which are building the climate for investment and sustainable growth and empowering and investing in poor people (World Bank 2002). The vision of the Bank is to be a catalyst in improving access to information and communication technologies and promoting their use for stimulating economic growth, increasing equality and reducing poverty. This vision paved the way for a modification in the Bank's policy towards sector reform.

The new strategic agenda for ICT, as outlined by the Bank, will comprise action in four areas:

Broadening and deepening sector and institutional reform: will see technical assistance for dealing with increasing convergence among technologies, lines of business and enterprises and all elements of the physical infrastructure. Legislative and regulatory changes will be pursued as required to facilitate the commercial and social exploitation of the Internet through e-commerce and e-government applications. Policy reforms will include traditionally overlooked sectors such as postal and distribution logistics (media and content), which are particularly relevant to the poor due to their low cost and wide reach. Support for regulatory development and capacity building will be extended.

Increasing access to information infrastructure: will see the provision of technical and investment assistance to extend access beyond what commercial providers are prepared to do on their own. The Bank will encourage a variety of mechanism to do this, such as universal access objectives and targets, specialised funds to provide onetime capital subsidies to promote access in liberalised markets and local participation in nonprofits communication and information facilities.

Supporting information and communication technologies human capacity: will see support for the rollout of information and communication technologies at school, college and adult education level. Private sector partnership will be formed for technical skills training of the next generation of ICT workers and finally, advice and skills training will be provided for entrepreneurs and government officials seeking to develop knowledge economy applications and industries.

Supporting information and communication technologies applications: will focus on the use of ICT as a platform in applications that would enhance public administration and private sector development as well as those with a significant social sector development impact. ICT will be include as a component in Bank projects in most other sectors, especially in education, health, finance, small business development and public sector management.

United Nations Development Programme (UNDP)

The United Nations Development Programme (UNDP) offered a different perspective to the World Bank by insisting that improvement of the infrastructure is important but not in isolation. UNDP acknowledges that the fusion of computing and communications, especially through the Internet, has broken the bounds of cost, time and distance, launching an era of global information networking. In the early 1990s the Internet shifted from a specialised tool of scientific community to a more user-friendly network transforming social interaction (UNDP 1999). The UNDP offers a “strategic or big picture” role for ICT while the World Bank tended to concentrate on a more granular project/programme approach. In addition the UNDP in 1999 seemed to be moving to what will eventual becomes the core of the World Summit on the Information Society (WSIS) and that is the benefit of ICT in forging an Information Society.

ICT, according to the UNDP, can be a tremendous force for human development for all those connected by providing information, enabling empowerment and raising productivity. An important point was raised by the UNDP in that the potential for the use of ICT is great but it alone is not the solution and mentioned three cautions:

- Information-poor schools and hospitals are often poorly connected.
- Equipment is a necessity, but to be a part of a solution distance learning requires institutions, skills and good management.
- Information is only one of many needs.

UNDP lists seven goals on the road to an information society:

- (i) Connectivity - setting up telecommunications and computer networks;
- (ii) Community - focusing on group access not individual ownership;
- (iii) Capacity - building human skills for the knowledge society;
- (iv) Content - putting local views, news, culture and commerce on the Web;
- (v) Creativity - adapting technology to local needs and constraints;
- (vi) Collaboration - devising Internet governance for diverse needs around the world; and
- (vii) Cash - finding innovative ways to fund the knowledge society

In examining a few of these goals one can see the difference in conceptual design between the World Bank and the UNDP, with the latter opting for a more holistic view of ICT and the need for parallel development of the infrastructure and the national population. The UNDP from its position also seem to suggest a more active role for governments as oppose to the World Bank's view where ICT Development is mainly driven by the private sector. Again, it is the strategic versus sector roles of the two organisations.

The UNDP (1999) suggests that strong regulation and antitrust laws, well implemented, are needed to ensure that private markets are competitive markets and that public needs are met and this will be a challenge for all countries. Bringing connectivity to the national population will require community access and not individual ownership. The concept of one household, one phone is unrealistic in many developing countries, especially in rural areas and among poor communities everywhere. The creation of telecentres in places accessible to the average person is the appropriate strategy to adopt thereby giving a large cross-section of the low-income groups the same opportunities to harness the potential of the Internet.

The Final Report of UNDP's Digital Opportunities Initiative (DOI) (UNDP 2001) developed a strategic framework to help guide stakeholders in investing in and implementing strategies, which take advantage of the potential of ICT to accelerate social and economic development. The framework consists of five critically interrelated areas for strategic intervention:

- (i) Infrastructure – deploying a core ICT network infrastructure, achieving relative ubiquity of access, and investing in strategically-focused capacity to support high development priorities.
- (ii) Human capacity – building a critical mass of knowledge workers, increasing technical skills among users and strengthening local entrepreneurial and managerial capabilities.
- (iii) Policy – supporting a transparent and inclusive policy process, promoting fair and open competition, and strengthening institutional capacity to implement and enforce policies.
- (iv) Enterprise – improving access to financial capital, facilitating access to global and local markets, enforcing appropriate tax and property rights regimes, enabling efficient business processes and stimulating domestic demand for ICT.
- (v) Content and Application – providing demand-driven information which is relevant to the needs and conditions experienced by local people.

The DOI Report stated that the strategic framework does not assume that action in these five areas can be taken all at once. Development gains can be achieved through interventions in any one area but there are considerable benefits from a more holistic approach. Providing such strategic intervention are properly conceived and implemented, interaction between them has the potential to create significant multiplier and network effects. These can ignite a virtuous circle of sustainable social and economic development – “a development dynamic.”

Inter-American Development Bank (IDB)

The Inter-American Development Bank (IDB) views the role of telecommunication/ICT sector planning very much in the same way as the World Bank; however they differ in that there is a focus on the holistic approach to ICT development tailored to the specific needs of Latin America and the Caribbean. Importantly the IDB sees ICT as having no value by itself alone but rather for the function it helps satisfy. That function involves facilitating timely access to the precise information people need, in the most appropriate format, to build and apply knowledge in all aspects of their lives (IDB 2001).

The IDB believes knowledge-based development provides a framework for linking the application of ICT to achieving development objectives. The Bank's approach to sectoral planning at times appeared to be mechanistic and does not rely on an active stakeholder consultative process. This however appears to be changing based on Trinidad and Tobago's experience in 2003 in formulating a national ICT strategy.

Any vision for ICT development in Latin America and the Caribbean should be based on the belief that access to information for people to build and apply knowledge is a common denominator for achieving simultaneously democratic process of efficient, equitable and sustainable development.

In a document prepared in April 2001 entitled "Summit of the Americas, Strategic Programs: The Agenda of the IDB", the IDB outlined its concept for ICT development, which goes more in-depth into the socio-economic aspect for ICT than the World Bank. The Bank had said with respect to connectivity, one of the main challenges that the region faces is the so-called "digital divide" between rich and poor. Prosperity, social stability and the democratic development of the region require that all citizens have the opportunity to acquire knowledge and to participate effectively in civil society.

To assist in the integration of ICT into the respective national development agenda of the respective IDB member countries, the Bank identified some investments in the area of:

- Training youths, microentrepreneurs, farmers, craftsmen, rural women and others on the use of these technologies and to insure that these technologies, in turn contribute effectively to the growth and achievement of their human potential.
- Developing services with practical use (e.g. online government services) and with local content to facilitate civil participation in national decision-making processes while preserving local cultural values and promoting access to the new economy (e.g. electronic commerce);

- Promoting the development of virtual networks to benefit from the potential of a civil society that is vitalized by the interaction of its peoples, organizations, communities, markets and individuals, uniting efforts and resources in order to promote socioeconomic progress; and
- Developing regulatory frameworks that encourages national and regional investments in ICT and facilitate universal access to the new knowledge society.

The IDB Country Strategy with Trinidad and Tobago 2004-2007 sets out three principal and inter-dependent areas of strategic focus. One of which is promoting private sector development to achieve economic diversification. In the ICT sector, the objective of the Bank's intervention is to increase total factor productivity by producing ICT goods and services (IDB 2004). The areas of interest, according to the Strategy, are institutional, legal and regulatory framework; e-government; human capital development; connectivity; and enterprise development.

World Trade Organisation (WTO)

There is no one organisation that impacted more directly on the need for sector planning in telecommunications and ICT than the World Trade Organisation (WTO). As a direct result of Protocol 4 of the General Agreement on Trade in Services (GATS), countries had to give their commitments as to a timetable for the liberalisation of their telecommunications sectors. It was the Uruguay Round of Trade Negotiations that brought telecommunications into the realm of Trade in Services and market access to telecommunication services became a commitment on almost all countries.

In the WTDR 2003, the ITU noted that in the 1980s, WTO extended its mandate to services negotiations including telecommunication. By 1994 trade ministers established a Negotiating Group on Basic Telecommunications (NGBT) and an agreement was reached in February 1997 and entered into force a year later. Sixty-Nine (69) countries submitted to the WTO their list of commitments under Protocol 4 of the GATS Agreement and among them were five CARICOM Countries, Antigua and Barbuda, Dominica, Grenada, Jamaica and Trinidad and Tobago.

The significance of this act by these countries was to lay out to the international community a timetable by which their respective telecommunication sectors will be liberalised. This gave rise, especially in Trinidad and Tobago, for the need to set out a strategic roadmap to achieve a competitive domestic telecommunications environment through the formulation of a sector development plan.

The negotiations on basic telecommunications offered an instrument for consolidating and promoting the liberalisation of competition and trade in telecom services by making legally binding commitments on future liberalization plans (Cowhey and Klimento 2001). In addition, the basic template for sector reform was embodied in the accompanying document to the GATS Agreement known as the Reference Paper on Regulatory Principles, where the key recommendation was the establishment of an independent telecommunications regulatory agency.

To the WTO, the role of telecommunications as essential to the facilitation of international trade, economic development, and the enrichment of citizens' lives has become widely accepted. Modern means of telecommunications, enhanced by competition, will enable all countries to participate more fully in international trade, particularly if complemented by increased liberalization of cross-border supply of many electronically deliverable services. Many emerging economy governments which joined in making GATS commitments on basic telecommunications had come to view inadequate telecommunications networks and services as an impediment to achieving their full economic potential. Moreover, increased accessibility and added variety of telecommunications services will be the foundation of successful national and global information society initiatives and the social benefits these initiatives will bestow (WTO 1998). The GATS Agreement on Basic Telecommunications and Reference Paper were used by Governments to accelerate their policy reform agenda.

International Telecommunications Union (ITU)

The ITU's World Telecommunication Development Report 2003 (WDTR2003) noted that the idea of access to information opens the door to economic and social development is not new. As far back as 1984, the ITU Commission for Worldwide Development produced its Missing Link Report otherwise known as the Maitland Report, pointed to the fact that the lack of telecommunication infrastructure in developing countries impeded economic growth, it was mainly concerned with teledensity that is access to telephones. Not much attention is giving to the fact that this Report is one of the earliest references to the emergence of some kind of global strategy for telecommunication development. Arising out of that report the Canadian Government sponsored the creation of the Telecommunications Executive Management Institute of Canada (TEMIC) through which many of the senior management officials from Governments and Operators in the Caribbean learnt the principles of telecommunications planning and strategy.

The WDTR 2003 stated overcoming the lack of infrastructure and reducing costs may increase access to ICTs but does not guarantee that people will make use of them. This is a different in view to the World Bank in that the ITU determined

that there were two barriers and the first was training. Today's technologies are far more complex and demanding and the Internet is of little use to people who do not know how to take advantage of electronic access to information their lives. The second barrier is not having a specific reason to use the Internet and while there is no shortage of anecdotes on how ICTs are being used to improve welfare at grass-roots level, there is a lack of compelling research on how ICTs can transform the development process in poor nations.

The ITU strongly believed that it is important to avoid seeing the digital divide as just a problem of the ICT sector and instead to set it in the context of broader development goals. Hence the Union spearheaded the World Summit of the Information Society (WSIS) in two phases, the first was held in Geneva in December 2003 and the second and final phase was held in Tunis in November 2005.

The WSIS Action Plan, adopted at the end of the WSIS first phase in Geneva in 2003, saw the importance of the role of Government in ICT Sector Planning were it stated that Governments have a leading role in developing and implementing comprehensive, forward looking and sustainable national e-strategies. The private sector and civil society, in dialogue with governments, have an important consultative role to play in devising national e-strategies (ITU 2003). Trinidad and Tobago in 2002 did indeed utilize the consultative approach in the preparation of its own national e-strategy, the National Information and Communications Technology (NICT) Strategy.

Specific targets to achieve the Information Society were outlined in the Plan as well to serve as guidelines in the development of a policy framework for national e-strategies within the context of national development objectives. The targets agreed upon at WSIS by ITU Member States are to be achieved by 2015:

- (a) to connect villages with ICTs and establish community access points;
- (b) to connect universities, colleges, secondary schools and primary schools with ICTs;
- (c) to connect scientific and research centres with ICTs;
- (d) to connect public libraries, cultural centres, museums, post offices and archives with ICTs;
- (e) to connect health centres and hospitals with ICTs;
- (f) to connect all local and central government departments and establish websites and email addresses;

- (g) to adapt all primary and secondary school curricula to meet the challenges of the Information Society, taking into account national circumstances;
- (h) to ensure that all of the world's population have access to television and radio services;
- (i) To encourage the development of content and to put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet; and
- (j) To ensure that more than half of the world's inhabitants have access to ICTs within their reach.

Having looked at the various contributions to the emergence of the global consensus in telecommunications/ICT sector planning our focus turns to the specific influence this consensus has on sector planning at the national level. To illustrate and to determine if it was beneficial to national ICT development and the experience of Trinidad and Tobago affords us that opportunity.

SECTION 3: TELECOMMUNICATIONS/ICT SECTOR PLANNING IN TRINIDAD AND TOBAGO

Background

Gale T. C. Rigobert from the University of the West Indies (UWI) Graduate Institute of International Relations argues that while there is no shortage of rhetoric on the potential of ICTs to jumpstart Caribbean economies, not enough attention is being given to the co-ordination of efforts in ensuring that the fundamental prerequisites are established to facilitate the anticipated economic transition triggered by ICTs. The need for ICT Sector Planning was supported by Rigobert, where she saw governments of the region playing a critical role in establishing a well-regulated environment for harnessing ICTs (Rigobert 2006). This can only be successfully achieved with the implementation of an ICT sector plan or strategy.

Trinidad and Tobago's national developmental objective sees ICT as the means to facilitate economic growth and job creation as well as making the economy more competitive. The strategy basically meant that Government had to liberalise the telecommunications sector and improve national connectivity.

The successful development and implementation of a national telecommunications/ICT plan rests on the effectiveness of the prevailing institutional framework that is in place. The responsibility for telecommunications was shifted several times between government ministries and changes of Ministers and Permanent Secretaries. Prior to June 1998, telecommunications was under the Office of the Prime Minister, since then responsibility has shifted to the;

- (i) Ministry of Information, Communications, Training and Distance Learning (1998-1999);
- (ii) Office of the Prime Minister (Information and Communications) (1999-2000);
- (iii) Ministry of Communications and Information Technology (2000-2002);
- (iv) Ministry of Science, Technology and Tertiary Education (2002) and;
- (v) Ministry of Public Administration and Information (2002-present).

Despite these consistent changes, the major policy initiative, the liberalisation of the sector continued even where there were delays in specific strategic implementation measures

Planning Process 1989 - 2000

Medium Term Macro Planning Framework 1989-1995

The preparation of the Medium Term Macro Planning Framework (MTMPF) 1989-1995, marked the return to a formal national development planning process. The MTMPF was seen in 1990, when it was published, as a pre-cursor to the eventual formulation of a National Development Plan. The objective of the MTMPF 1989-1995 was to coordinate the various facets of national policy with a view to maximising the development and welfare of the citizens of Trinidad and Tobago (MPM 1990).

While the term "Information and Communication Technology (ICT)" was widely used in the late 1980s and early 1990s, the MTMPF offered insight into Governments thinking at the time as it related to the role of the telecommunication and broadcasting sectors in national development. The Framework indicated that in view of the critical importance of information and communication to the nation's progress, the Government is committed to the effective and efficient use of information as a national resource for growth and economic development; for strengthening social and cultural identity and for fostering mature participatory democracy (MPM 1990).

The MTMPF called for the establishment of an independent telecommunication regulatory authority. It would take approximately ten years for this key target to become a reality on account of the Dookeran Report in 1998, when the Telecommunications Act 2001 was passed. The influence of multilateral organisations on telecommunication sector planning during the early 1990s was principally attributed to the ITU where Government recognised telecommunication as a strategic element in the development effort, agreeing with the findings in the ITU's Maitland Commission 1984 Report.

The Framework noted that the Government was fully cognisant of the strategic importance of the industry and that the sector's development programme will take into account international developments. In parallel the MTMPF outlined the need to rationalise the provision of domestic and international telecommunication services, which prior to 1989 was the responsibility of two separate companies. Therefore the highlight of early part of this planning period was the privatisation of the state-owned Trinidad and Tobago Telephone Company (TELCO) and the majority-owned Trinidad and Tobago External Telecommunications Company into a new single entity called the Telecommunication Services of Trinidad and Tobago Limited (TSTT). Government retained a 51% shareholding in this new company, while the British company Cable and Wireless (West Indies) Limited had 49%.

National Telecommunications Policy Framework 1998: Dookeran Report

With the conclusion of the Uruguay Round of Trade Negotiations, the globalisation of telecommunications impacted on how telecommunications was to be treated. The Government of Trinidad and Tobago (GOTT) made commitments to the World Trade Organisation (WTO) in February 1997 and during this time a Ministerial Committee on Telecommunications headed by the Minister of Planning and Development was created to review existing legislation in the context of the new international scenario.

In 1997, a Working Group on Telecommunications was formed with Mr. Winston Dookeran, then Governor of the Central Bank as its Chairman. The Report of the Working Group is also known as the Dookeran Report. The work of this Group marked the first evidence that a formal and structured approach to telecommunication sector planning began to take shape. The range of membership was to allow for a wide array of views to have an input as to the final recommendations. The ITU provided the services of a Consultant.

In its Final Report in 1998, the Working Group viewed the adequate management of the evolution of an information-based economy would offer significant export opportunities and earnings, create new and challenging employment opportunities, diversify the economy and contribute to rural growth (MOPAD 1998). In addition they also felt that a modern, information-based economy cannot be achieved with a telecommunication sector characterised by poor quality of service, low penetration ratios, relatively high prices and inadequate access to modern telecommunication and information services. The Report continued to note where the evolution of technology, prices and industry structures around the world where countries are becoming more and more interdependent is having a profound impact on telecommunications in Trinidad and Tobago and for this reason; Trinidad and Tobago cannot remain isolated from such global developments.

The two key recommendations of the Working Group were the enactment of a new Telecommunications Act and the creation of an independent regulatory agency. Both were achieved. The Telecommunications Act was passed in 2001 and proclaimed in 2004, while the Telecommunications Authority was operationalised in 2004 at the same time the Act was proclaimed.

For the period 1998-2000, activity centred on the drafting of a new Telecommunications Act with assistance from the ITU and the Commonwealth Telecommunications Organisation. The IDB provided grant resources to facilitate the engagement of a legal firm based in the United States to assist the Government in its initial discussions with Cable and Wireless on the liberalisation

of the sector and the preparation of draft telecommunication legislation that conform to the WTO commitments.

The GOTT thereafter shifted to tactical planning in the form of the overall Medium Term Policy Framework (MTPF), which was renamed the Social and Economic Policy Framework (SEPF). The MTPF and later SEPF was essentially a rolling three-year planning framework that highlights key policy measures and strategies for the various sectors over a three-year horizon.

Policy Measures and Strategies 2000-2003

Developments in telecommunications/ICT during this period were guided by a series of policy measures and strategies based on the key recommendations of the Dookeran Report and other policy statements detailed in the Medium Term Policy Framework (MTPF) and later the Social and Economic Policy Framework (SEPF). The MTPF served to outline the main features of Government's macroeconomic management policies, while establishing a number of key economic targets. Furthermore it places primary emphasis on policies and measures aimed at achieving stable non-inflationary growth; strengthening the external competitiveness of the domestic economy; improving the country's level of external resources; generating a substantial and sustainable increase in employment; preserving and enhancing the environment; and strengthening the effectiveness and efficiency of the social safety net.

The MTPF 2001-2003 published in 2000 stated that the principal challenge for Trinidad and Tobago is the formulation of a comprehensive strategy to participate gainfully in the new knowledge-driven economy. Competition in the new economy compels Trinidad and Tobago to view the development and effective use of its information infrastructure as a key national objective. It continued to mention where a competitive environment for the development of information technology-related industries and improvement in the existing telecommunications network infrastructure are critical to meet the demands of the knowledge economy. Here the influence of the emerging global consensus by multilateral organisations had caused the government to acknowledge the need to return to a formal sectoral planning process for the development of ICT in Trinidad and Tobago.

The immediate action plan of the then Ministry of Communications and Information Technology (MCIT) in 2000 noted that the only sectoral policy existing was the Dookeran Report and saw the need for a national ICT strategy to be formulated. MCIT also saw the establishment of the Trinidad and Tobago Telecommunications Authority as an indispensable element of the development of ICT services to ensure global competitiveness. The holistic approach to ICT sector planning had not as yet taken root.

The MTPF 2002-2004 published in 2001, stressed the immediate task of telecommunications sector reform, which had as its centrepiece the implementation of the Telecommunications Act 2001. To assist in this activity, Government will access the Multilateral Investment Fund (MIF) of the IDB for the technical assistance in the form of legal, economic and engineering consultancies to strengthen policy formulation in implementation and regulatory management. This marked the deepening of the IDB in the telecommunications/ICT planning process in Trinidad and Tobago. The IDB viewed themselves as partners in development and while maintaining its established approach to sector reform sought to give GOTT some leeway in determining policy prescriptions. The IDB Telecommunication Modernisation Project was signed in 2002 and the Project also financed the development of the National Information and Communication Technology Strategy in 2003.

As a precursor to the eventual preparation of a National Strategic Plan, VISION 2020, the Government replaced the MTPF in 2002 with a comprehensive document called the Social and Economic Policy Framework (SEPF), which sought to focus all of the main government policy objectives around three principal agendas, which were:

- The Human Development Agenda
- The Economic Growth and Diversification Agenda
- The Environmental Agenda

ICT was viewed as essential to economic growth and diversification and in the SEPF Trinidad and Tobago was seen as entering a new phase of industrialisation where there will be increased demand for high-level skills, managerial and entrepreneurial capabilities as well as competence in the utilisation of sophisticated technologies.

The objective for ICT outlined by the SEPF was that Government will continue to invest, build and facilitate the development of information technologies, telecommunications and internet infrastructure in Trinidad and Tobago.

The Planning Process 2002 to present

National Information and Communication Technology Strategy

In November 2002, the Honourable Prime Minister convened a meeting of senior officials from Ministries and Departments that dealt with various aspects of ICT matters and mandated that a National ICT Strategy be developed. The Minister responsible for telecommunications, the Minister of Public Administration and Information was appointed to be Chairman of the Steering Committee comprising of Ministers and Permanent Secretaries from the relevant Ministries and

Department. To streamline the institutional arrangements, responsibility for ICT matters was assigned to the Minister of Public Administration and Information (MPAI), who already had telecommunications as part of his portfolio. Electronic Commerce and Electronic Government were re-assigned from other ministries to MPAI in May 2003.

The process to derive the NICT Strategy involved a consultative process that was extensive. For the NICT Plan, the Government of Trinidad and Tobago appointed five (5) Working Groups to focus on the Human Resources, Economy and Finance, Infrastructure and Government issues associated with formulating the Plan. An environment of openness, collaboration and broad stakeholder participation was employed throughout the strategy development process (MPAI 2003).

The global perspective of the selected international organisations did have an impact on the ICT planning process by making available information on best practice and international experience to the Government. As in the case of the Dookeran Report the country's commitment to the WTO in the area of telecommunications as well as, to a lesser extent, national consensus on the need for improved telecommunication services determined the final strategic direction.

The Prime Minister of Trinidad and Tobago had commented to the Working Groups, at the commencement of their task, "ICT sits at the core of everything we must do to improve the efficiency, productivity and competitiveness of our nation. ICT has those ingredients which, if employed properly, could make this sector of our community not only a generator of national prosperity, but an instrument of economic and social justice in Trinidad and Tobago." Telecommunication/ICT sector planning had now reach centre stage as an initiative of the country's Prime Minister who, from the tone of his statement is fully aware as to the emerging global consensus and sought to put it in the context of Trinidad and Tobago's socio-economic development.

In the NICT Strategy the national ICT vision is; Trinidad and Tobago is in a prominent position in the global information society through real and lasting improvements in social, economic and cultural development caused by deployment and usage of information and communication technology (MPAI 2003). Also the Strategy noted that the objective of the country's national connectivity agenda is to:

- Provide all citizens with affordable Internet access;
 - Focus on the development of children and adult skills to ensure sustainable solution and a vibrant future;
 - Promote citizen trust, access and interaction through good governance;
- and

- Maximise the potential within all citizens and accelerate innovation to develop a knowledge-based society.

The stated objectives of the NICT Strategy were that by 2008:

- All schools with high-speed computers and Internet access
- All libraries with up-to-date computers and high-speed Internet access
- Community Connection Programme in place
- All appropriate Government services available on-line
- Over 50% of homes with personal computers and Internet access
- Over 50% of population “regular Internet users”
- Over 50% of businesses on-line and seeing business benefits

The Strategy also outlined key programmes and projects that were central to realising its goal and stated objectives. Some of these programmes, which are currently in different phases of execution, formed the backbone of the implementation strategy and are as follows:

- ***The Community Connection Programme***, which involved the provision of Community Access Centres (CAC) beginning with a pilot study.
- ***The Legislative Review and Reform Programme***, which will examine the existing legal and legislative framework and make recommendations to facilitate the promotion of e-business activities in Trinidad and Tobago
- ***The Knowledge, Innovation and Development (KID) Programme***, will through the SchoolNet Project of the Ministry of Education, provide up-to-date computers and connect all schools in Trinidad and Tobago to high-speed Internet service by 2008.
- ***The LibraryNet Programme*** to be executed by the National Library and Information Service Authority (NALIS) will provide all libraries with computers and high speed Internet access.
- ***The e-Marketplace Programme*** will provide an avenue for Small and Micro Enterprises (SME) to conduct business online through a SME B2B e-Marketplace.
- ***The e-Government Programme*** will essentially complement the existing Government Wide Area Network (GWAN) Project, which is to connect all Ministries and Agencies over a public service communications backbone. The programme will see the creation of an e-Government Portal that will be the single point to access all appropriate government information and services by 2008.

Other includes the e-Justice Programme, Broadband Strategy and Implementation Programme, ICT Human Capital Development Programme and the ICT Sector Development Programme.

Budget Statements 2004-2006

In the presentation of the 2004 National Budget the Prime Minister, who is also the Minister of Finance, sought to stress the importance of ICT sector planning for Trinidad and Tobago. He said the ICT sector is critical to the modernization of Trinidad and Tobago and to improving our competitiveness in the international market place. The Government will therefore continue to facilitate the development of information technologies, telecommunications and internet infrastructures in Trinidad and Tobago (Ministry of Finance 2003).

In 2006, the Prime Minister returned to ICT development in his presentation of the 2007 Budget where he noted that the country had made significant progress in the liberalization of the telecommunications sector. He added that the sector is critical to Trinidad and Tobago's industrial development since telecommunications infrastructure is the key to increasing profitability and competitiveness in the global environment.

In terms of fiscal incentives, the 2007 Budget articulated that the Government will reduce the cost of broadband services and to make access to the wireless internet cheaper and more widely available nationwide. This will be accomplished by exempting from value added tax (VAT) for an initial period of two (2) years telecommunications equipments required for roll out of internet and broadband services.

VISION 2020

Introduction

The responsibility for charting a new course in national development planning was that of the Ministry of Planning and Development (MPD). After more that a decade of sectoral planning which at times did not seem to have any inter-linkages, the Government decided to return to a formal co-ordinated national development planning process under the banner of VISION 2020: Developed Country Status By 2020. This meant that the NICT Strategy, which was prepared in 2003 had to be complementary to the National Development Agenda.

MPD had stated that in recent times, the planning process has been influenced by the need to be more responsive to the dynamics of the global economy, a closely integrated global community, trade and current liberalization, rapid

changes in ICT, aggressive social, economic and cultural changes and to the strong national and international commitment to the alleviation of poverty and the focus on HIV/AIDS as a development issue. Hence this the need for a new policy agenda and implementation plan for Trinidad and Tobago to address these new challenges.

Mallalieu (2006) in the context of VISION 2020 sees the advancement to a knowledge society based on the following prerequisites:

- Adequate infrastructure
- Vibrant and productive business sector
- Absence of traditional obstacles to access
- Meaningful and appropriate services
- Purpose
- Purpose-driven innovations

She said that the VISION 2020 Strategic Plan did capture many of the prerequisite parameters of a knowledge society.

Strategic Plan

For ICT, the VISION 2020 Draft Strategic Plan adopted the theme “Fostering a Connected Society”. The Plan called for the national population to be a connected people with computerised libraries, schools and businesses in all municipalities; a computer in every home; and ease of access to the Internet (MPD 2006b). It stresses that it must become easy to speak to, see and share documents with others purchase almost any product or services at affordable prices, locally or internationally, from the comfort and security of our homes. The Plan notes that with a de-monopolised telecommunications sector and an effective regulatory authority, state-of-the-art and effective communications services must become the norm.

Operational Plan 2007-2010

By late 2006 the SEPF had been replaced by the VISION 2020 Operational Plan where ICT continued to be recognised as an enabling sector, which means that it has a strategic impact on the development of the economic and social sectors of the country. The Operational Plan for 2007-2010 sees ICT as one of the main drivers of change in the global environment and a major facilitator of economic and social development (MPD 2006a). It goes on to say that the use of ICT can be a powerful catalyst for development of a sustainable learning society, the building of competitive businesses and improvement of governance and efficiency of Government.

The VISION 2020 Operational Plan 2007-2010 seeks to link the development of ICT in Trinidad and Tobago to the wider issue of national development. The Plan outlines the goal as Trinidad and Tobago becoming an inter-connected technologically advanced society with modern information and communication systems driving innovation, growth and social progress, the hallmarks of a knowledge-based society. In the Operational Plan, Information and communication technology (ICT) is one of the main drivers of change in the global environment and a major facilitator of economic and social development. The use of ICT can be a powerful catalyst for development of a sustainable learning society, the building of competitive businesses and improvement of governance and the efficiency of Government. The goal is really to be an inter-connected society that embraces modern information and communication systems to fuel innovation, economic growth and social progress.

Among the sector objectives outlined in the draft Plan are:

1. Develop a modern and competitive Information and Communication Technology (ICT) Sector.
2. Ensure that all citizens have access to efficient and affordable telecommunications and postal services.
3. Promote ICT acculturation among all citizens.
4. Expand the use of information and communication technologies to modernize the operations of the public sector.
5. Increase the availability of online government information and services.
6. Promote the development of competitive ICT-based businesses.
7. Encourage greater use of ICT in business operations and market transactions.
8. Expand high speed internet connectivity to all schools and libraries

Institutional and Implementation Mechanism

Policy Planning and Research Unit

The need for policy and research support was recognized since 1997 when the Dookeran Committee was supported by a Technical Secretariat that consisted of officers from the Ministries of Trade and Industry; Planning and Development and the Office of the Prime Minister.

By May 2000, it was decided to provide technical and managerial support to the office of Permanent Secretary with responsibility for telecommunications. By then, the term Information and Communication Technology (ICT) had entered the official lingo to describe the merging of telecommunications, broadcasting and information technology services. A principal reason that was advanced for the creation of the Unit was that policy reform efforts in telecommunications, as a result of the World Trade Organization (WTO) Agreement on Trade in Services, placed the sector within the realm of economics and public policy planning.

The Office of the Prime Minister (OPM) in 2000 believed that there was a critical need for co-coordinating and monitoring the implementation of policy measures and strategies related to the specialized areas of telecommunications, broadcasting and information technology (Mitchell 2006). Such co-ordination, it was felt must also ensure the link with the overall socio-economic development of the country.

In reviewing the proposal for a policy planning and research function, it was recognized that the establishment of a policy unit to focus on activities related to ICT was critical to the successful achievement of strategic objectives. The conclusion was that such a Unit would provide an opportunity for a holistic approach to be adapted to policy management as it related to the policy development, implementation, review and evaluation in respect of the mandate of the ICT sector.

The Policy Planning and Research Unit underwent names changes over the past five years to reflect the assignment of telecommunications and ICT to different Ministries. These were the ICT Policy Unit and ICT Policy Team under the Ministry of Science, Technology and Tertiary Education and most recently the Telecommunications Policy Unit under the Ministry of Public Administration and Information. The Unit was replaced by the ICT Division in June 2005.

ICT Division

With the completion of the National Information and Communication Technology (NICT) Plan, attention turned to the future management of the ICT portfolio of the Ministry of Public Administration and Information. This new focus was also influenced by the global convergence of the telecommunications, broadcasting and information technology sectors into a single ICT sector. The Division's aim is essentially to provide strategic guidance on national ICT development and to coordinate the implementation of programmes and projects under the NICT Strategy, otherwise branded as *fastforward*.

The existing separate Units within the Ministry that had oversight of these sectors would accordingly have to be re-organised in a new re-aligned Division. The Government in September 2004 agreed to the establishment of a new ICT Division, which replaced the following:

- Telecommunications Policy Unit
- E-Government Unit
- National E-Commerce Secretariat
- ICT Planning Secretariat

Although it was implemented in September 2004, the Division was operationalised with effect from July 1, 2005 on account of the lengthy recruitment process, which impacted negatively on the transition period for the execution of the NICT Plan.

Sector Performance

The benefits of the national telecommunications/ICT sector planning are too early to distil since as has been shown the implementation of appropriate policy measures and strategies is still in its infancy. However, the Telecommunications Authority of Trinidad and Tobago (TATT) had begun to analysis the impact of the policy measures and strategies on the domestic ICT market. The Authority's Domestic Market Analysis Report marks the beginning of a concerted attempt to track the performance of the ICT sector which will inform policy development. The last attempt was the "Performance of the ICT Sector" produced by the Ministry of Science, Technology and Tertiary Education in 2001.

The Report notes that the ICT sector is presently not a major industry in the Trinidad and Tobago economy. In 2005, the estimated gross revenue of the telecommunications and broadcasting sectors totalled TT\$3 billion (US\$477.9 million) which represented 4 per cent of the Gross Domestic Product (GDP).

The impact of ICT sector planning over the last five years are highlighted in the Report where for example the number of mobile service subscribers increased from 160,000 in 2001 to 1,030,000 by March 2006. Internet subscribers moved from 35,000 in 2001 to 93,000 by March 2006 and the internet penetration rate grew from 2.7% in 2001 to 7.1% by March 2006 (TATT 2006).

SECTION 4: CONCLUSION

The Paper sought to explain in some detail the conceptual framework of the international agencies in respect to understanding the role of ICT in national development, otherwise known as the global consensus. From this framework the approach to national planning was highlighted and attempted to show to what extent the global consensus influenced the design of national policy. In looking at the Trinidad and Tobago experience, while there is evidence that global developments in Telecommunications and ICT were instrumental in focusing the national planners on the critical and strategic issues. The impact of the country's commitment to the WTO cannot be underestimated since it served to address the need for an organised approach to achieve the timetable agreed upon through the co-ordination of the various legislative, policy and institutional elements that were crucial to the whole reform agenda.

The result showed that the strategies were in fact arrived at through national consensus even with the role of international development agencies like the IDB for Trinidad and Tobago. A clear understanding of the holistic role of ICT in the wider development agenda was indeed evident in the Trinidad and Tobago context, which also impacted on the institutional arrangements.

While it is outside the scope of this Paper, there is need to consider the importance of mapping the multilateral financial institutions conceptual frameworks, inclusive of their particular historical and political context which drove how they viewed ICT Development. Telecommunications/ICT Development was seen as one area to initiate the concept of "leapfrog" development.

In the final analysis, formal telecommunications/ICT sector planning has been brought to centre stage in Trinidad and Tobago and it will forever be a part of the national strategic development landscape. The challenge for the future is the delivery from those plans and that will be the next chapter in sector planning.

References

Cowhey, Peter F. and Klimento, Mikhail M. 2001. The WTO Agreement and Telecommunications Policy Reforms. World Bank Policy Research Papers No. 2601. Washington D.C.

Rigobert, Gale T.C. 2006. Digital Divide Must be Conquered. Article in the Sunday Guardian, December 3, 2006. Port of Spain, Trinidad and Tobago.

Inter-American Development Bank (IDB). 2001. Connectivity and Technological Development in Summit of the Americas, Strategic Programs: The Agenda of the IDB. Washington D.C. IDB

Inter-American Development Bank (IDB). 2001. The Emerging Knowledge Based Economy in Latin America and the Caribbean: A Common Denominator in Development. Washington D.C. IDB

<http://www.iadb.org/sds/itdev/ictdevemerging.htm>

International Telecommunication Union. 2002. Trends in Telecommunications Reform: Effective Regulation. Geneva. Switzerland.

International Telecommunications Union. 2003a. World Summit on the Information Society (WSIS) Plan of Action. Geneva. Switzerland.

International Telecommunication Union. 2003b. World Telecommunication Development Report: Reinventing Telecoms. Geneva. Switzerland.

Mallalieu, Kim I. 2006. Transforming Trinidad and Tobago into a Knowledge Society. Paper presented at the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) Telecommunications Round Table. May 2006. Port of Spain, Trinidad and Tobago.

Marcelle, G.M. 2004. Closing the Digital Divide in the Caribbean A Leadership Challenge. Paper presented at the Association of Caribbean University, Research and Institutional Libraries (ACURIL) XXXIV Annual Conference. May 2004. Port of Spain, Trinidad and Tobago.

Marcelle, G.M. 2005. Course Notes for Telecommunications Sector Planning Unit 5. The MRP (Telecommunications) Programme. Port of Spain, Trinidad and Tobago.

Mitchell, Peter. 2006. Finding the Right Balance: The Issue of the Division of Responsibility between a Ministry and Regulatory Agency: Case of Telecommunications in Trinidad and Tobago. Paper presented and the University

of the West Indies Conference on Governance, Institutions and Networks. October 2006. St. Augustine, Trinidad and Tobago.

Telecommunications Authority of Trinidad and Tobago. 2006. Domestic Market Analysis of the Telecommunications and Broadcasting Sectors. San Juan.

Tipson Fredreick S. and Frittelli Claudia., 2003. Global Digital Opportunities: National Strategies of ICT Development. MARKLE Foundation. Washington D.C.

Trinidad and Tobago Ministry of Communications and Information Technology. 2001. Strategic Planning Framework for the Ministry of Communications and Information Technology (Unpublished). Port of Spain

Trinidad and Tobago Ministry of Finance. 2000. Medium Term Policy Framework 2001-2003. Port of Spain.

Trinidad and Tobago Ministry of Finance. 2001. Medium Term Policy Framework 2002-2004. Port of Spain.

Trinidad and Tobago Ministry of Finance. 2003. Budget Statement 2004 by the Honourable Prime Minister and Minister of Finance. Port of Spain.

Trinidad and Tobago Ministry of Finance. 2006. Budget Statement 2007 by the Honourable Prime Minister and Minister of Finance. Port of Spain.

Trinidad and Tobago Ministry of Finance. 2004. Social and Economic Policy Framework 2005-2007. Port of Spain.

Trinidad and Tobago Ministry of Planning and Development (MPD) 1998. Report of the Working Group to prepare a National Policy on Telecommunications for Trinidad and Tobago. Port of Spain.

Trinidad and Tobago Ministry of Planning and Development. 2006a. Draft VISION 2020 Operational Plan 2007-2010. Port of Spain

Trinidad and Tobago Ministry of Planning and Development. 2006b. Draft VISION 2020 Strategic Plan. Port of Spain

Trinidad and Tobago Ministry of Planning and Mobilisation (MPM). 1990. Restructuring for Economic Independence: Medium Term Macro Planning Framework 1989-1995. Port of Spain

Trinidad and Tobago Ministry of Public Administration and Information. 2003. Fastforward Trinidad and Tobago. Accelerating into the digital future: National Information and Communication Technology Strategy. Port of Spain.

United Nations Development Programme (UNDP). 2001. Creating a Development Dynamic: Final Report of the Digital Opportunity Initiative. New York: UNDP

United Nations Development Programme (UNDP). 1999. New Technologies and Global Race for Knowledge, Chapter 2 in Making New Technologies Work for Human Development. Human Development Report. New York: UNDP

Wellenius, Bjorn. 1992. Telecommunications: World Bank Experience and Strategy. World Bank Discussions Papers No. 192. Washington D. C. World Bank.

World Bank. 2002. Information and Communication Technologies. A World Bank Group Strategy, Executive Summary. Washington D.C. World Bank

World Bank. 2003. ICT and MDGs, A World Bank Group Perspective. Washington D.C. World Bank

World Bank. 2002. Information and Communication Technologies: A World Bank Group Strategy, Executive Summary. Washington D.C. World Bank