Regional Seminar on Costs and Tariffs

TAL Group Member Countries

Impact of Telecom Liberalisation

A Trinidad and Tobago Regulatory Perspective

Presented by:

The Telecommunications Authority of Trinidad and Tobago

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Overview

- **Key Liberalisation Initiatives**
  - ✓ Creation of Enabling Legislation
  - ✓ Establishment of Independent Regulator
  - ✓ Regulatory Framework
  - ✓ Creating an Open Market
    - Award of Concessions and Licences
- **The Impact of Liberalisation**
  - Key Market Indicators
  - Digital Access Index and Digital Opportunity Index
- **Challenges and the Way Forward**

Key Liberalisation Initiatives

Initial Steps in T&T's Liberalisation Process

- **Government's commitment to WTO**
  - ✓ **Signatory to General Agreement on Trade in Services (GATS)**
- **Creation of <u>Enabling Legislation</u>**
  - ✓ **Telecommunications Act 2001 (as amended in 2004)**
  - ✓ **Foreign Investment Act removed restrictions for foreign ownership**
- **Establishment of an <u>Independent Regulator</u>**
  - ✓ **Telecommunications Authority of Trinidad and Tobago (TATT)**
  - ✓ **Operationalised in 2004**

TATT's Mandate

- "… to guide the sector's transformation from virtual monopoly, in which Telecommunications Services of Trinidad and Tobago is the principal provider of telecommunications services, to a competitive environment,
- to monitor and regulate the sector so transformed and, in particular,
- to prevent anti-competitive practices."

- Preamble in Telecommunications Act

Regulatory Framework

In order to achieve sector transformation, the regulatory framework must facilitate the achievement of the objects of the Telecommunications Act.

Regulatory Framework

- **Objects of the Telecommunications Act:**
  - ✓ **To create conditions for fair competition**
  - ✓ **To facilitate the orderly development of telecommunications**
  - ✓ **To encourage investment and innovation in the telecommunications sector**
  - ✓ **To promote and protect the interests of the public**
    - **prices, variety and quality of service**
  - ✓ **To promote universal access**

Phased Approach to Regulatory Framework

Phase 1: Developing Regulations to:

- ✓ Create conditions for fair competition
- ✓ Facilitate the orderly development of telecommunications
- ✓ Encourage investment and innovation in the telecommunications sector

Phase 2: Developing Regulations to:

- ✓ To promote and protect the interests of the public
    - prices, variety and quality of service
- ✓ To promote universal access

Regulatory Framework

Phased Approach

Phase 1	Consultation Procedures Authorisation Framework, Concessions and Licences – Service Neutral (enables triple play service provision) – Technology Neutral (no specific technology mandated) – Encourages service provision by small and micro enterprises Policies and Regulations for Interconnection, Access to Facilities, Fees Dispute Resolution Procedures

Regulatory Framework

Phased Approach

Phase 1 Cont'd.	**Interim Concession Obligations including:** – Universality – Consumer Standards – QOS Standards – Competition and Price Regulation – Radio Frequency Radiation (RFR) Standards **Consumer Complaints Handling Process** **Numbering Plan and Administration Procedures** **Spectrum Management Policy, Regulations and Plans** **Tower Non-objection Procedures**

Regulatory Framework

Phased Approach

Phase 2	Network Quality of Service Policy and Regulations Customer Service Policy and Regulations Costing Methodology and Models Price Regulation Framework and Regulations Account Separation Guidelines Universality Policy and Implementation Plan

Creating an Open Market for Telecoms

Domestic Fixed	**Seven (7) network operators (1 PSTN, 5 cable, 1 WiFi)** – 3 national, 1 Trinidad only, 1 Tobago only, 2 niche – Subscription TV Services (5) – Dial up and Broadband (up to 15Mbps) Internet Services (3) – Voice Services (2) **Five (5) legacy Internet Service Providers** – Dial up and Broadband (up to 512 kbps) Internet Services – VPNs – Migrating to WiMAX technologies **Two (2) Broadband Wireless Access Providers (700MHz, 12 GHz)** – New Authorisations via Spectrum Auction Process – Wireless Internet and Cable (Subscription TV)

Creating an Open Market for Telecoms

Domestic Mobile	**Three (3) operators (GSM, CDMA)** – **Ongoing TSTT-Digicel Dispute (Interconnection Rates)** – **Physical Interconnection on Sender Keep All basis (voice traffic only)** – **Laqtel still to launch. TATT pursuing legal action for concession breach.**

Creating an Open Market for Telecoms

International	Ten (10) Facilities and Service Providers – Three (3) landed fibres (Two (2) in service, the other to be in service Q1 2008) – Five (5) leased fibres (Three (3) in service) – Four (4) VSAT links (all in service) – Services offered include: • Inbound and Outbound Int'l Voice and Data • International Circuits to other carriers (Leased, IRUs) •Private Leased International Circuits •VPNs • Dedicated Internet Access • IP and Clear Channel Services

Licensing of Additional Broadcasters

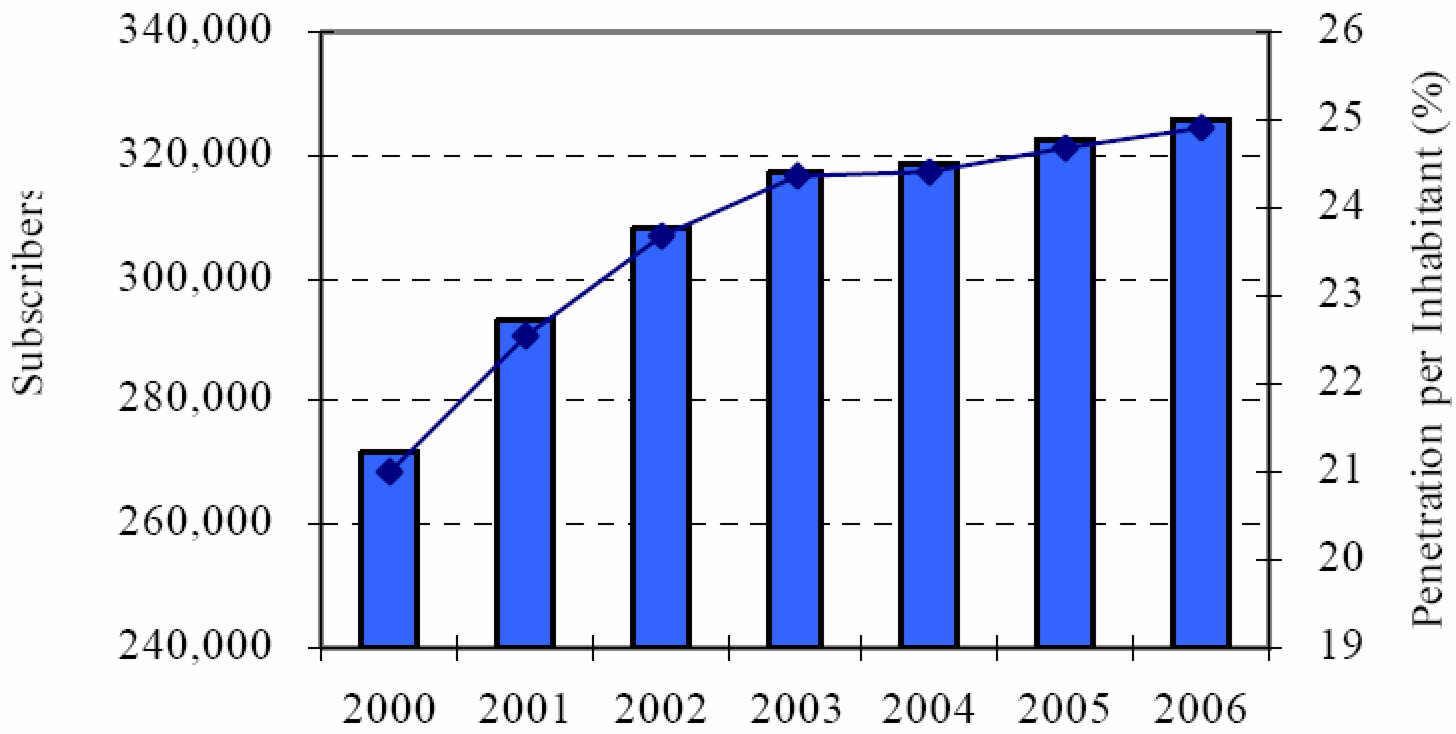
Broadcasting Sector	
	Free to Air Television – Six (6) Providers – Four (4) National, Two (2) Major Territorial – Recommendations made for two (2) additional providers to Minister **Free to Air Radio** – Thirty Seven (37) Providers – Thirty (30) National, Six (6) Major Territorial, One (1) Minor Territorial **Television Via Cable Network** –Four (4) National Providers

Impact on Key Market Indicators

Rates

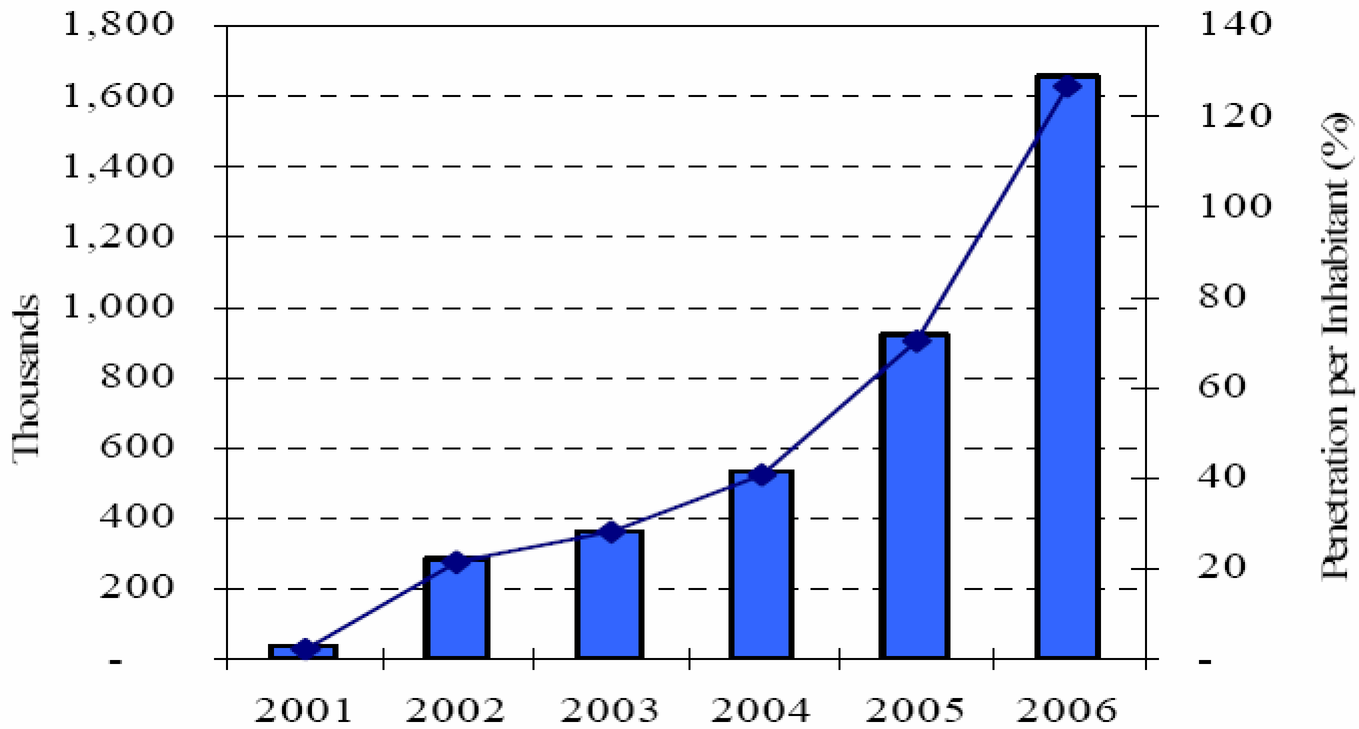
	Average % change - 2004 to Present (excl. promotional offers)
Domestic Fixed Line Calls	0% change
Domestic Mobile Calls	46% decrease
International Calls (US, UK, Canada, Caribbean)	71% decrease
Broadband Internet Access	75% decrease
TSTT Wholesale Domestic Backhaul Facilities	40.7% decrease

Fixed Line Subscribers



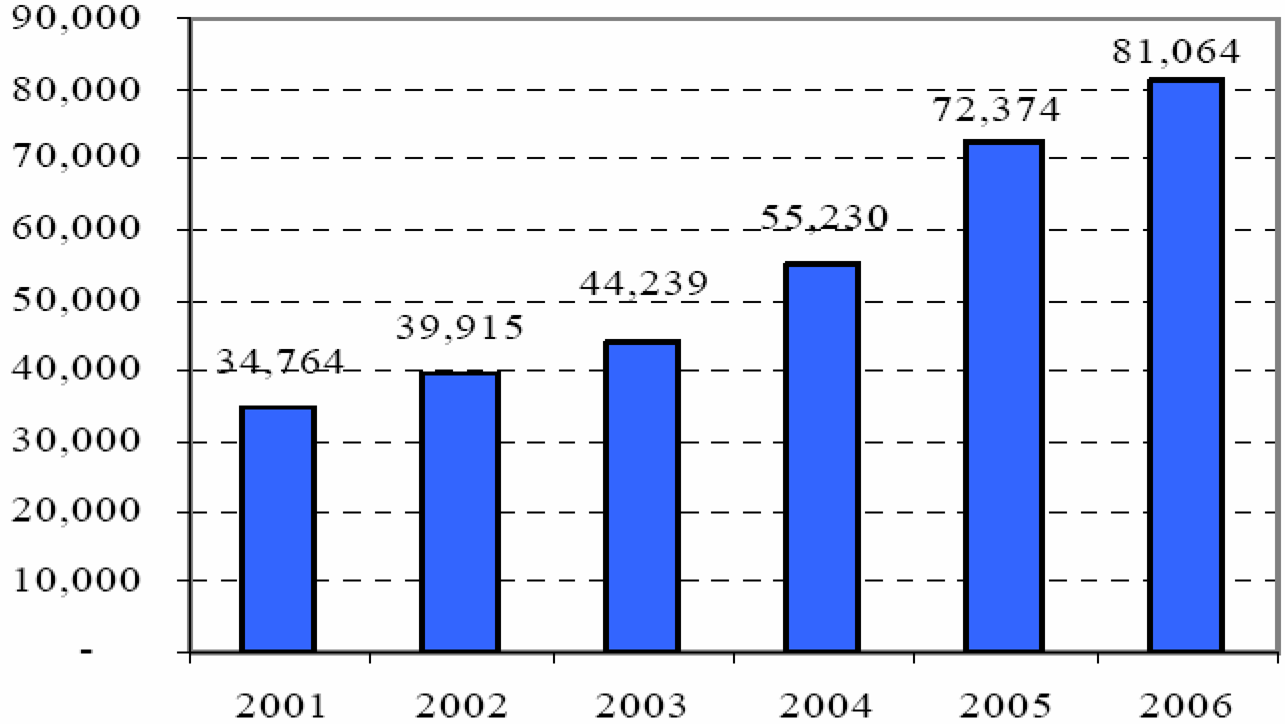
Fixed Line Subscribers & Penetration per 100 Inhabitants 2000 – 2006

Mobile Subscribers



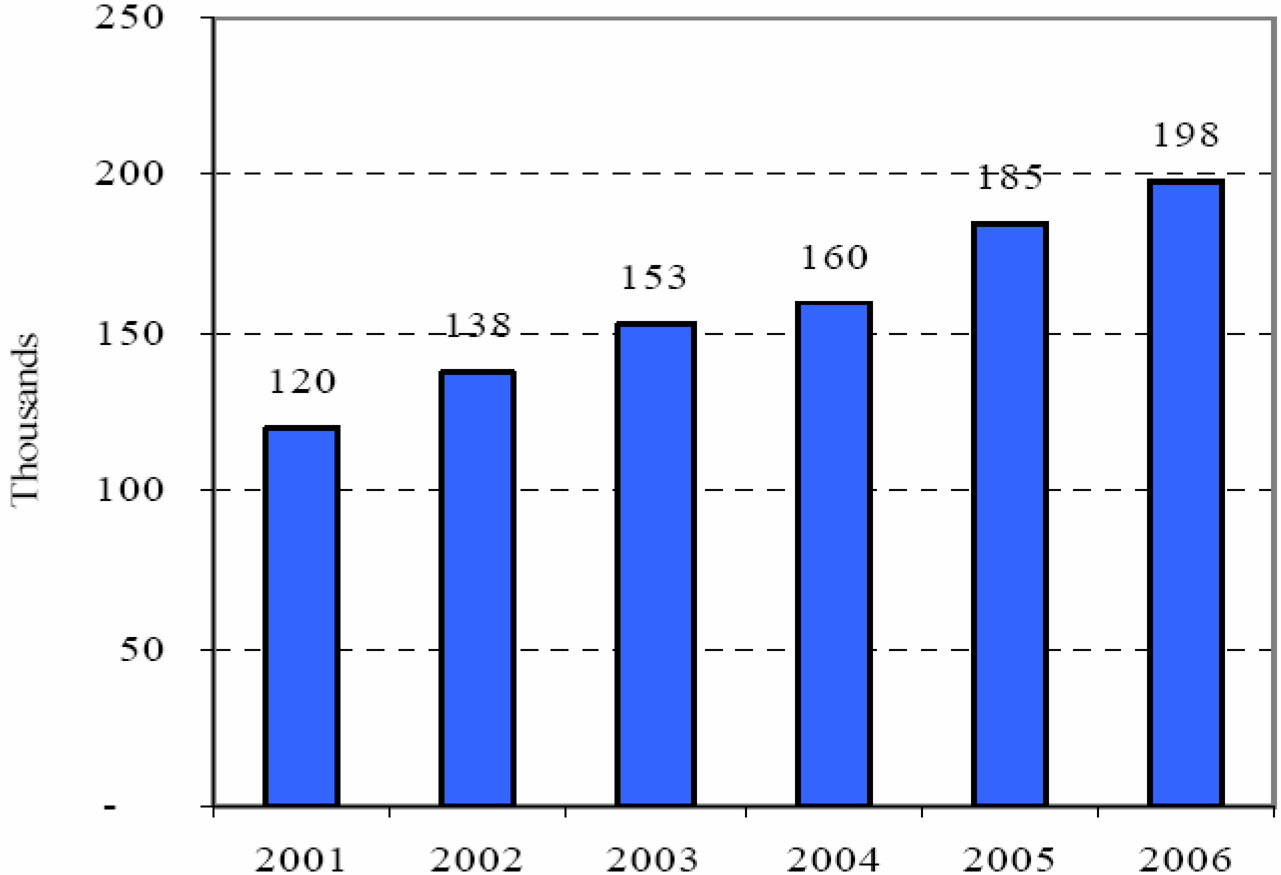
Mobile Subscribers 2001-2006

Internet Subscribers



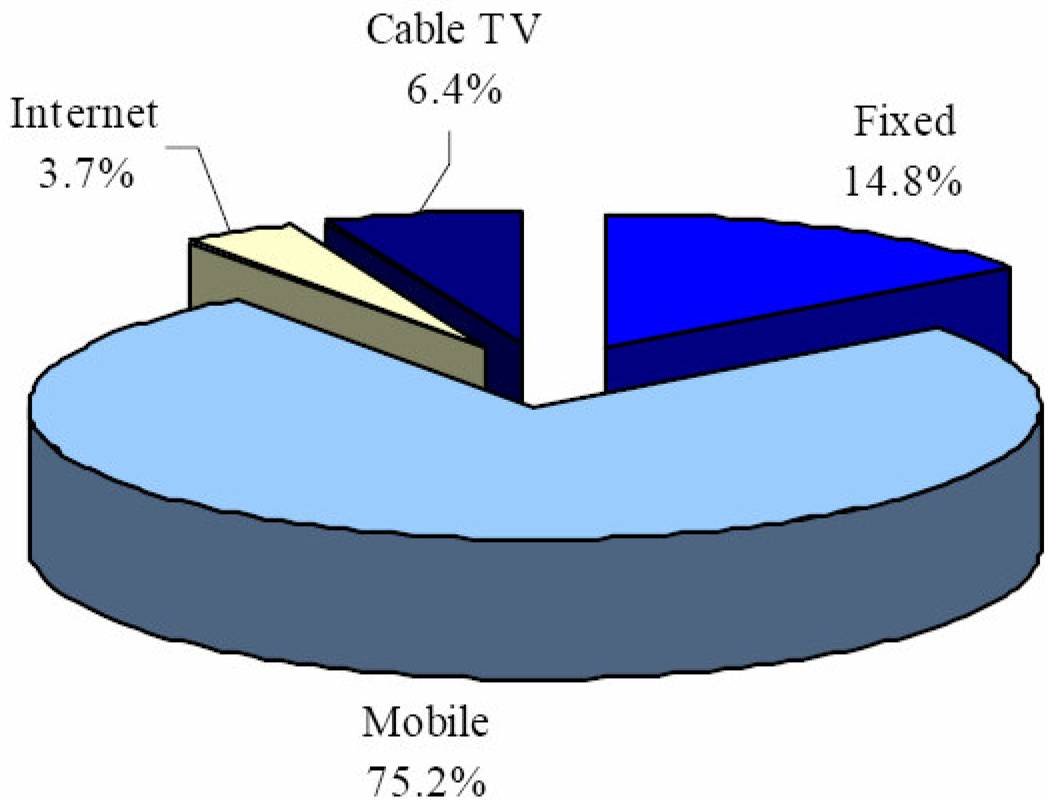
Internet Subscribers 2001-2006

Internet Users



Internet Users 2001-2006

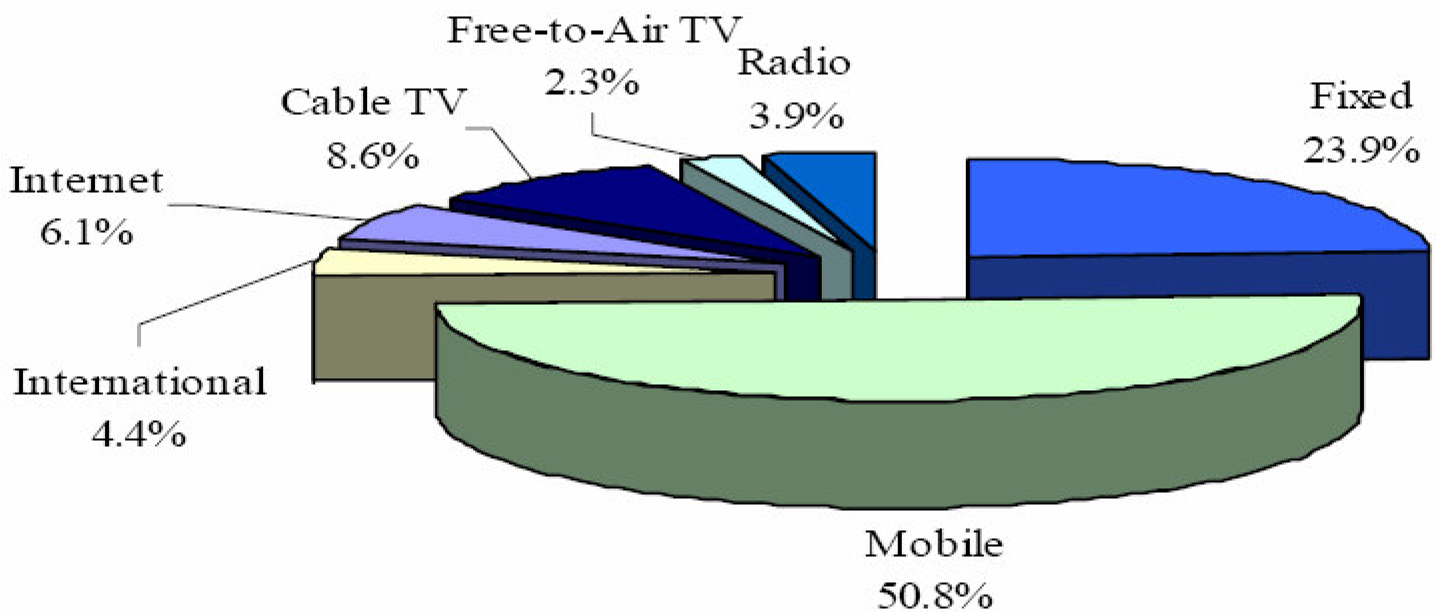
Market Overview - Subscribers



Market Share of Subscribers as at December 2006

Market Overview - Revenues

Total Sector Revenues for 2006 : TT$3.3 billion (3% of GDP)



Telecommunications and Broadcasting Sectors Market Share by Revenues 2006

Impact on T&T's Digital Indicators

- **T&Ts DAI and DOI measured at national and community levels**

- **Indicators Used:**
  - ✓ **Digital Access Index (DAI)**
  - ✓ **Digital Opportunity Index (DOI)**
  - ✓ **DOI_Alternate (DOI_ALT)**
    - To prevent skewing of results due to particular local circumstances pertaining to ratio of mobile broadband Internet subscribers to mobile Internet subscribers

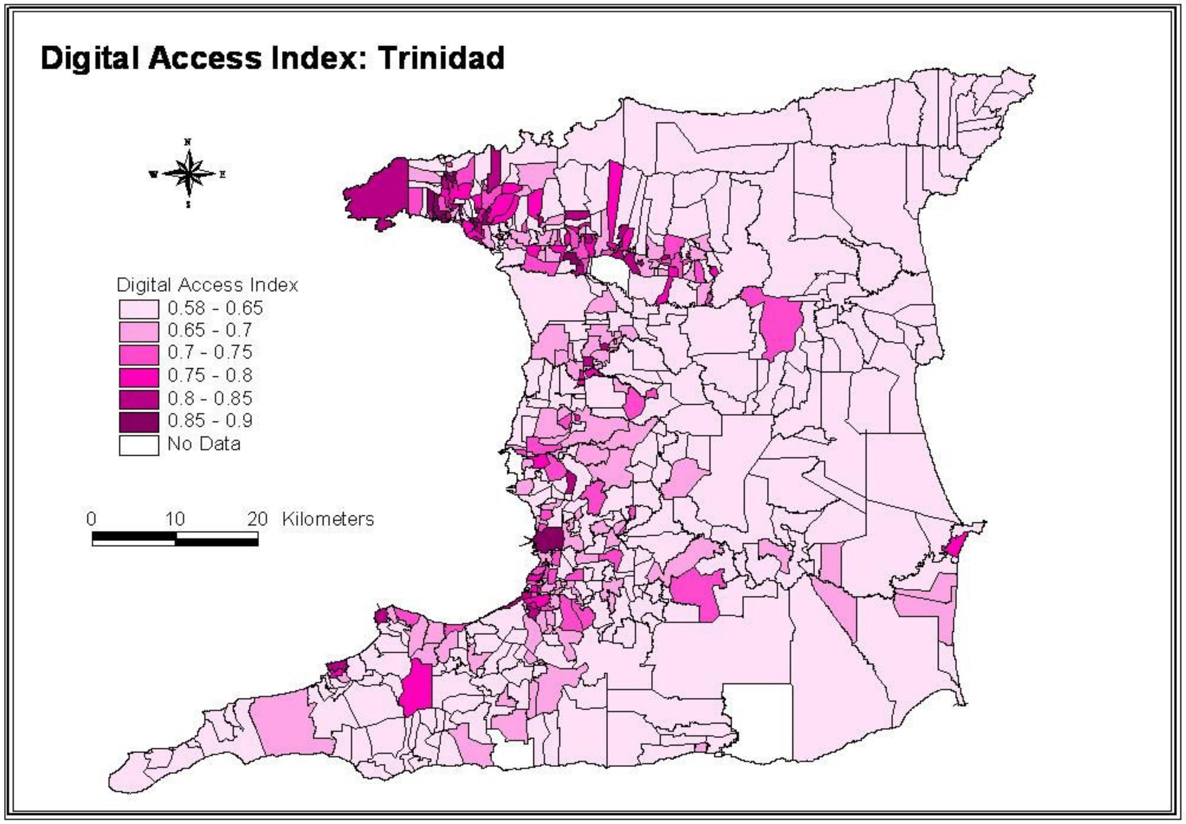
DOI_ALT	DOI	DAI
0.56	**0.63** 0.5 (2006)	**0.67** 0.53 (2002)

Digital Assessment Methodology

- Primary data to calculate the DAI and DOI was collected through a 2- tiered national survey
  - ✓ Service provider survey
    - All the major service providers (fixed, mobile, internet)
    - Specialized public agencies: NALIS, Ministry of Education and Ministry of Community Development
  - ✓ Household survey
    - Trinidad and Tobago divided into 585 communities (518 in Trinidad and 67 in Tobago) using information from Central Statistical Office (CSO).
    - A random sample of 20 communities were drawn representing the total population.
    - 6,000 households were surveyed

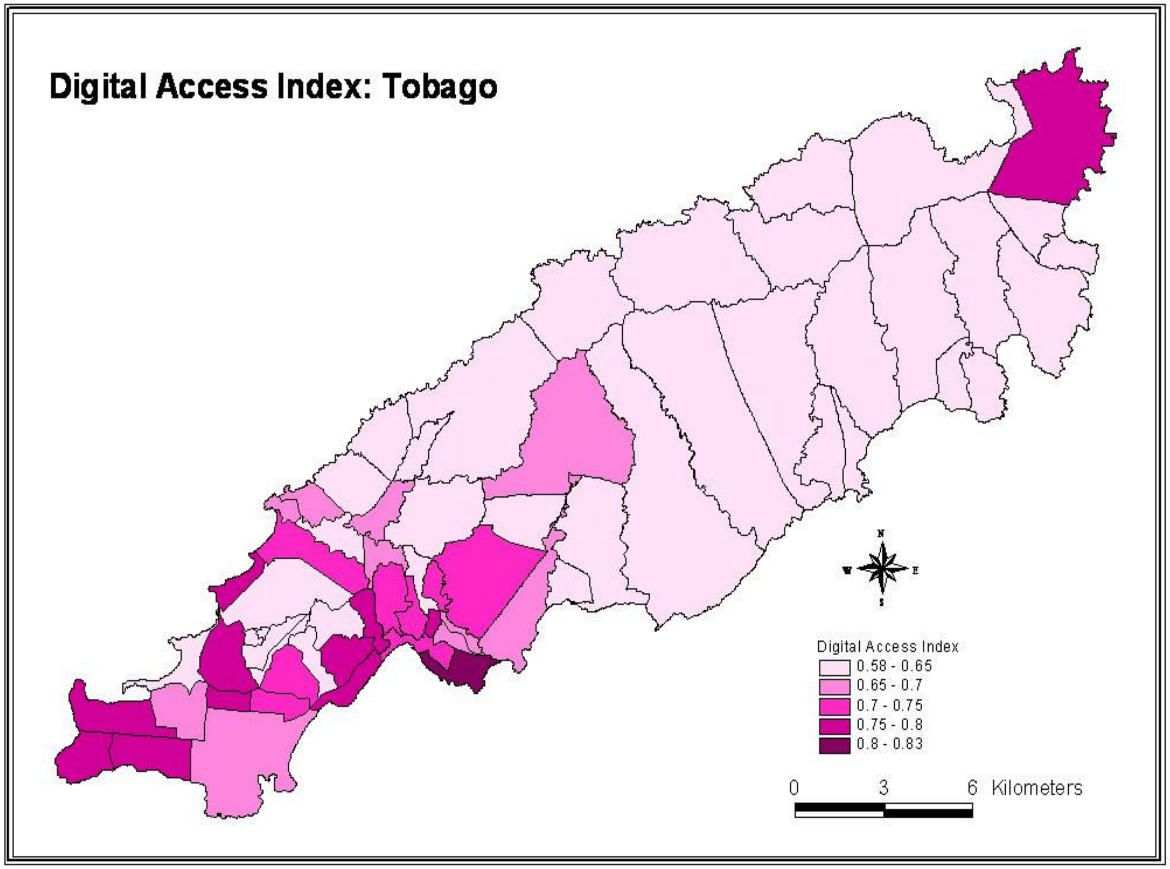
DAI of Trinidad – Community Level

- 0.60- 0.65 range: 27% of communities
- 0.65 – 0.70 range: 20% of communities
- 0.70 – 0.75 range: 8% of communities
- 0.75 and higher: 15% of communities



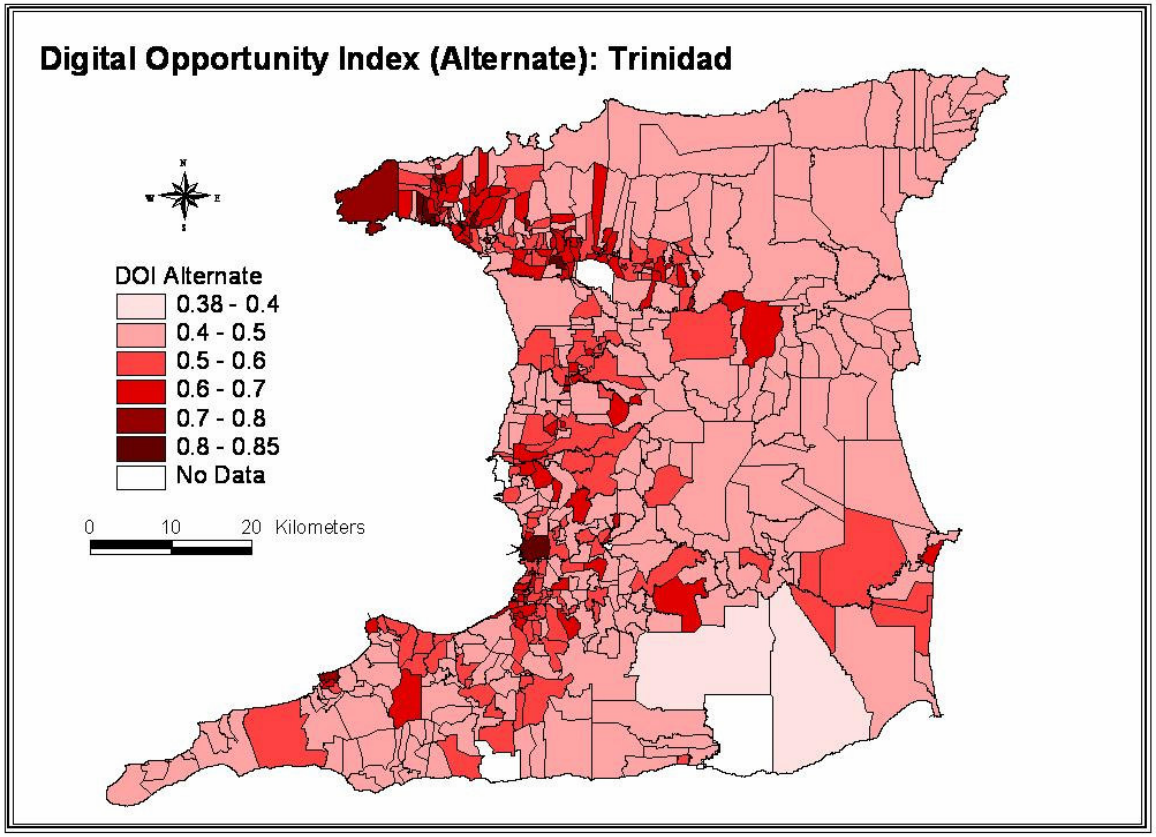
DAI of Tobago – Community Level

- ✓ **0.56- 0.60 range: 30% of communities**
- ✓ **0.60 – 0.65 range: 28% of communities**
- ✓ **0.65 – 0.70 range: 10% of communities**
- ✓ **0.70 and higher: 31% of communities**



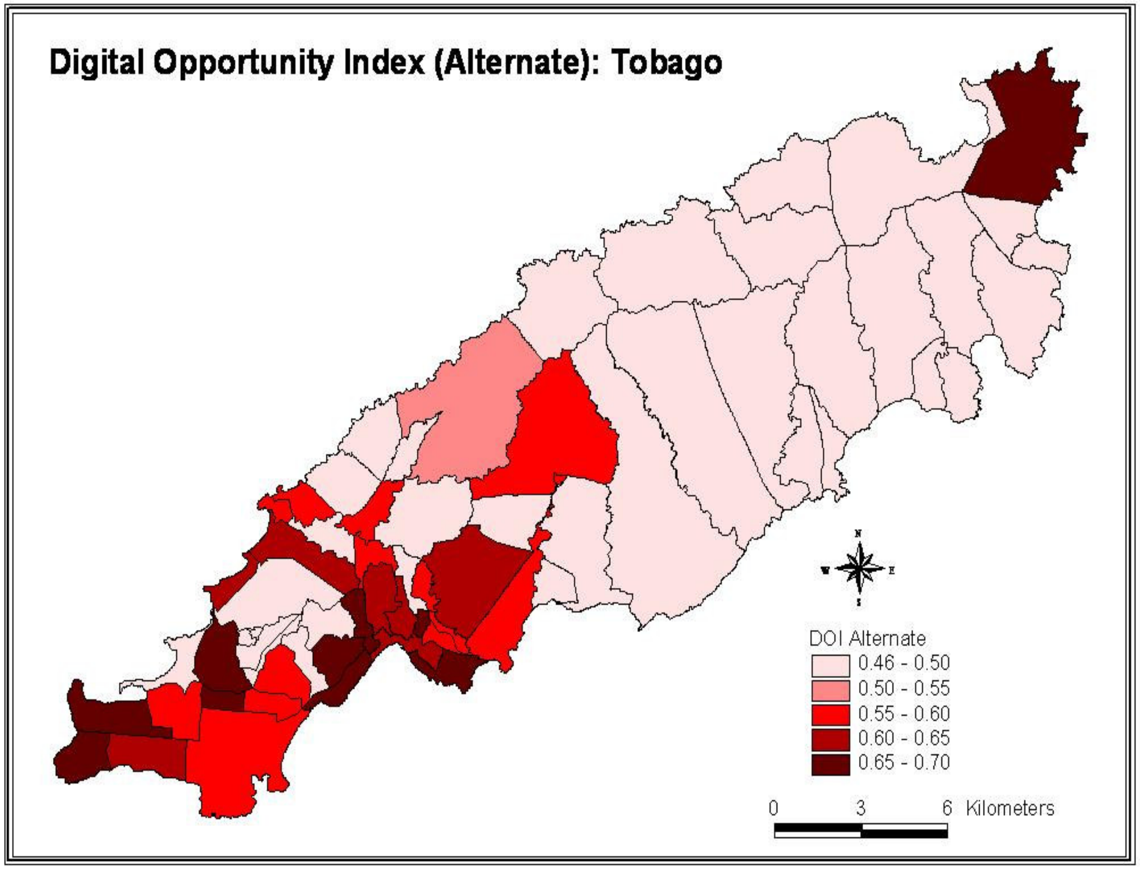
DOI of Trinidad – Community Level

- ✓ **0.38- 0.40: 0.4% of communities**
- ✓ **0.40 – 0.50 range: 54% of communities**
- ✓ **0.50 – 0.60 range: 25% of communities**
- ✓ **0.60 – 0.70 range: 17% of communities**
- ✓ **0.70 and higher: 4% of communities**



DOI of Tobago – Community Level

- 0.46- 0.50: 52% of communities
- 0.50 – 0.60 range: 18% of communities
- 0.60 – 0.70 range: 24% of communities
- 0.70 and higher: 1% of communities



Areas of Focus for TATT - Universality

- Facilitate additional infrastructure development and implement measures to make broadband services more affordable, with particular emphasis on Internet access;
  - ✓ Make additional broadband spectrum available for licensing
  - ✓ Provide incentives and subsidies through Universality Program where applicable

Challenges and Way Forward

Key Challenges and Way Forward

Key Challenges	Way Forward
Legislative and Regulatory Gaps	✓ **Recommendations for Act Amendments made to include more comprehensive competition safeguards** ✓ **Completion of Regulatory Framework**
Resource Constraints	✓**Acquire additional resources to fill revised organisational structure**
Information **Asymmetry**	✓ **Establishment of Regulations for periodic submission of data from concessionaires**
Enforcement and Compliance (Pricing, Quality of Service, Outstanding TSTT-Digicel Interconnection Agreement)	✓ **Resolution of Ongoing Interconnection Disputes** ✓**Implementation additional Proactive Regulatory Monitoring Systems** ✓ **Implementation of Regulatory Enforcement Mechanisms (Pricing, QOS)**