

Regional Seminar on Costs and Tariffs for Member Countries of the Regional Group for Africa (SG3RG-AFR)

Maputo, Mozambique, 4-6 May 2009

ITU-D Works on Broadband

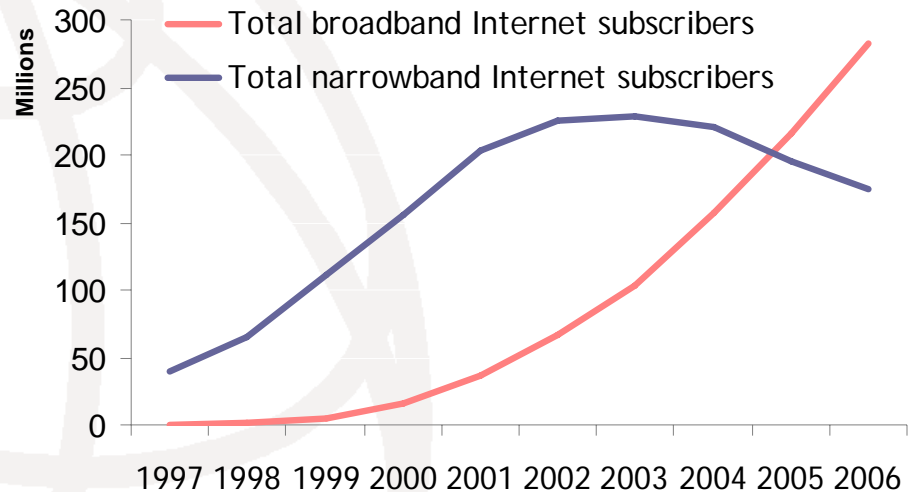
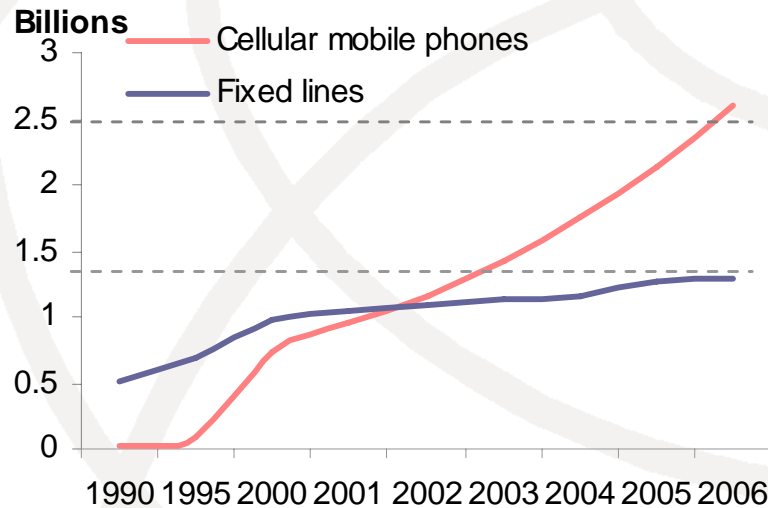
Carmen Prado-Wagner,
Regulatory and Market Environment Division
BDT, International Telecommunication Union

[carmen.prado\[at\]itu.int](mailto:carmen.prado@itu.int)

Agenda

- Why universal access to broadband?
- Regulatory incentives to promote broadband & enable universal access
- Best practice guidelines
- ITU-D works on Broadband

Mobile & broadband



2002: Mobile overtook fixed

2005: Broadband overtook narrowband

Source: ITU World Telecommunication Indicators Database

Broadband & Universal Access

- Wired and wireless services become complementary but also substitutable.
- Developing countries might “leapfrog” capitalizing on wireless technologies to rapidly deploy cost-effective infrastructure nationwide.
- Broadband networks (both wireless or fixed) are likely to be the key to the sustained growth in Internet subscribers.
- Although broadband has not been included as part of national USOs, an increasing number of countries have made broadband service providers subject to compulsory contributions to funds promoting UA & US (USFs).

Regulatory incentives to promote broadband

First wave of regulatory reform

- Market liberalization -- competition drives investment
- Need to develop/enforce pro-competition regulations
- Support entry by all interested parties and technologies
- Wireless access technologies likely to play a key role
- More flexible licensing practices, e.g. unified licenses/general authorizations; or “strings”
- Innovative spectrum management practices
- Subsidies: grants for community planning efforts, subsidized or low-interest loans
- Ensure affordability of services
- Harmonize international and regional practices and standards and transpose them into national legislation

Regulatory incentives to promote broadband

Second wave of regulatory reform

- Encourage deployment of a full-range of broadband access technologies (from FTTx to WiMax)
 - Optimize spectrum management
 - Encourage build-out of backbone networks
 - Unbundle core and access networks
 - Infrastructure sharing/open access to promote fibre backbones
 - Stimulate competition among various technologies
 - Support small-scale deployment in rural areas
 - Tax incentives
 - Creating national and regional IXPs, as well as VoIP peering exchanges, to keep the local Internet traffic local

- Design and implement a flexible, non-discriminatory, technology-neutral and service-neutral regulatory framework to create incentives for large and small operators.

GSR 2004 Best Practice Guidelines on Promotion of Low Cost Broadband

We encourage regulators to:

- set policies to stimulate competition among various technologies and industry segments that will lead to the development and deployment of broadband capacity. This includes addressing barriers or bottlenecks that may exist with regard to access to essential facilities on a non-discriminatory basis.
- allocate adequate spectrum to facilitate the use of modern, cost effective broadband radiocommunications technologies. To encourage innovative approaches to managing the spectrum resource such as the ability to share spectrum.

» GSR 2004 Best Practice Guidelines on Promotion of Low-Cost Broadband

The promotion of access to low cost broadband interconnectivity should be integrated from “grass-roots” efforts to identify local needs all the way through to the “tree tops” of international law. Governments, businesses and non-governmental organizations should be involved.

ITU-D works on Broadband

- The results of the ITU Workshop on “Regulatory policies on universal access to broadband services”, ITU-D Study Group 1, Question 7-2/1 held in Geneva, Switzerland the 8 September 2008:
 - Broadband as an enabler of the information society
 - National strategies for spreading broadband access
 - Regulatory challenges to deploying broadband for universal access
 - Practical strategies to promote Universal Access to Broadband

<http://www.itu.int/ITU-D/treg/Events/Seminars/2008/broadband.html>

Trends in Telecommunication Reform 2006: Regulating in the broadband world

- The 7th edition of Trends in Telecommunication Reform provides regulators with:
- tools they can use to promote effective and innovative development and use of ICTs in a competitive environment;
- an overview of developments in the ICT sector, specifically focusing on broadband, its advent, the technologies,
- the role of the regulator in broadband development, broadband spectrum management, voice over IP (VoIP) regulation, international efforts to combat spam (including a model law and enforceable code of conduct), and identifies best practices.

<http://www.itu.int/ITU-D/treg/publications/index.html>



Study Group 1 Question 7-2/1

Regulatory policies on universal access to broadband services

- regulatory policy aspects linked to broadband services and technologies,
- specific universal access aspects with regard to management of access and interconnection agreements and methods of financing universal service;
- aspects to keep up the technological neutrality principles inserting broadband access services to the universal services package;
- best practices in seeking funding sources and developing innovative financing mechanisms for accelerating universal access/service development in rural communities;
- aspects relating to ways and means and solutions for promoting universal access/service in respect of broadband services.
- the final report of this Question for the period 2006-2010 is under preparation.

http://www.itu.int/ITU-D/study_groups/index.html

Study Group 2 Question 20-2/2

Examination of access technologies for broadband telecommunications

- Taking into account the expected results from ITU-T and ITU-R, there will be a set of best-practices guidelines for implementing wired and wireless broadband technologies in developing countries.
- Analysis of the economic, technical, regulatory and development factors influencing the effective deployment of broadband access technologies.
- A matrix of different broadband access technologies, both wired and wireless, terrestrial high-altitude systems, including stratospheric-based and satellite.
- Yearly updating of the technology matrices will be necessary, including an update of the output report of the last study period by the year 2010.
- The report final of this Question for the period 2006-2010 is under preparation.

http://www.itu.int/ITU-D/study_groups/index.html

Broadband Wireless Network project and IP Telephony

- The objective of this project is to develop and implement wireless broadband connectivity and ICT applications that will provide free or low cost digital access for schools and hospitals, and for underserved populations in rural and remote areas.
- The expected outcome of the project will include:
 - Deployment of Wireless broadband infrastructure for identified areas in selected countries in Africa;
 - Development of ICT applications
 - Training local experts on the operation of deployed wireless communication Network.
 - Development of national ICT broadband network plan for entire territory of the beneficiary countries.

ICT Regulation Toolkit

- **Module 1:** Regulating the Telecommunications Sector: Overview
- **Module 2:** Competition and Price Regulation
- **Module 3:** Authorization of Telecommunication/ICT Services
- **Module 4: Universal Access and Service**
- **Module 5:** Radio Spectrum Management
- **Module 6:** Legal and Institutional Framework
- **Module 7:** New Technologies and Impact on Regulation



<http://www.ictregulationtoolkit.org/en/index.html>

Module 4: Universal Access and Service

This module is structured as follows:

- [Chapter 1](#) is an introduction to UAS;
- [Chapter 2](#) gives an overview of regulatory reform which is the first vital step of increasing UAS using market mechanisms and good regulation;
- [Chapter 3](#) introduces the main approaches and specific UAS instruments, policies and interventions that policy-makers and regulators can use beyond sector reform;
- [Chapter 4](#) discusses details of UAS policy development, its framework and process;
- [Chapter 5](#) explains financing issues related to UAS and financial analyses;
- [Chapter 6](#) outlines details of UAS programme development and economic analysis, in particular for project prioritization;
- [Chapter 7](#) describes the competition process of awarding subsidies for the provision of UAS by operators and service providers; and;
- [Chapter 8](#) gives an overview of technology issues and trends that are particular relevant for UAS.

Thank you!

[carmen.prado\[at\]itu.int](mailto:carmen.prado@itu.int)

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