



---

**ITU-D Broadband Activities  
ITU/BDT Regional Seminar on Broadband Wireless  
Access (BWA) for CIS, CEE and Baltic Countries  
November, 2007  
Moscow, Russia**

**Laboni Patnaik  
Rapporteur ITU-D Q20/2  
laboni@qualcomm.com  
1-858-845-8621**

---

1

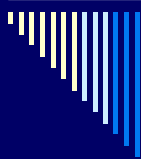


---

**Developing Regions**

- **Growing demand for Broadband**
  - **Lack of wireline infrastructure needed to meet the growing demand for Broadband**
  - **BWA, economical and easy to install, is a good high performance solution to address the needs of developing regions**
  - **Deployment of wireless broadband services in rural and remote areas can help to address a variety of challenges posed by the distance**
    - **Examples include e-health, e-learning, e-government, etc...**
- 

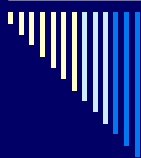
2



## ITU-D Broadband Activities Presentation Agenda

- ITU-D Introduction
- Overview of Q20-2/2: Broadband Access Technology
- Public Role in Promoting Broadband
- Best Practice Guidelines for Broadband Access in Developing Countries

3



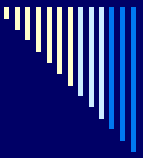
## ITU Structure



### ITU-D manages two study groups:

- These groups serve as a forum for developing and developed countries and public and private sector organizations to meet with the purpose of devising innovative solutions which address specific problem areas as identified by the World Telecommunication Development Conference.
  1. Study Group 1: Telecommunication development strategies and policies (regulatory)
  2. Study Group 2: Development and management of telecommunication services and networks (technical)

4



## ITU-D Study Question 20-2/2 Broadband Access Technologies

- Approved at World Telecommunications Development Conference 2002 and updated at the Conference of 2006:
  - Identify the technical, economic, and development factors influencing the effective deployment of broadband wired and wireless access technologies and their applications, with a focus on technologies and/or standards recognized or under study by the other two ITU Sectors.
- Technology Scope:
  - All broadband technologies - as inclusive as contributions permit.
- The report and revised Study Question were submitted to the WTDC in Doha in March, 2006.

5



## ITU-D Study Group 2 Question 20-2/2 Broadband Access Technologies

- The Report is divided into 3 main sections:
  1. **General Broadband Matters:**
    - Social and Economic Benefits
    - Broadband Applications
    - Broadband Deployment
  2. **Technology Matrices**
    - Wireline Broadband Access Technologies (ex: DSL)
    - Wireless Broadband Access Technologies
      - Fixed Broadband Wireless Access (ex: IEEE 802.16 2004 standard)
      - Mobile Broadband Wireless Access (ex: ITU approved IMT-2000 standards)
    - Technologies in the Process of Standardization (ex: Canopy Solution)
  3. **Country Experiences**

6



## Revised Question 20-2/2 for the 2006-2010 Study Cycle

- A proposal for a revision of Question 20 was approved at the SG2 meeting in September 2005 and then sent to the WTDC '06 and approved for the next ITU-D study cycle from 2006 – 2010.
- The following inputs are called for in Q20 for the next ITU-D Study Group period:
  - Collection of developing Member States' requirements through a questionnaire.
  - An assessment of developing countries' experience with broadband access technologies using the same questionnaire referred to above.
  - An update of ITU-T and ITU-R outputs, relevant to broadband access technologies.
  - Contributions of concerned industry on the development of broadband access technologies for both wired and wireless.
  - Contributions on economic factors relevant to the deployment of wired and wireless broadband technologies, this might include information on tariffs, equipment costs, interconnection charges, licensing fees for wireless applications, etc.

7



## Public Roles in Promoting Broadband

- *Establish government programs that serve to accelerate broadband supply:*
  - Several government sponsored programs at the local, national and regional levels have been successful at increasing the overall supply of broadband
  - Specifically, governments can invest directly in broadband infrastructure as well as provide tax credits, low-interest loans and subsidies to the industry players looking to provide broadband networks in underdeveloped areas.
  - It is important that in promoting development of broadband “for all” to avoid any direct or cross-subsidy by the state which would give an unfair advantage to some market stakeholders.

8



## Public Roles in Promoting Broadband

- ***Public institutions as effective anchors for broadband demand:***
  - In areas where individual household connections are not yet viable, schools, hospitals and community access centres can be utilized to offer broadband connections.
  - The network can then expand incrementally from these key points as the technology and economy allows.
  - Wireless broadband also offers a viable community alternative to fixed line solutions such as broadband via DSL or cable modem.

---

9

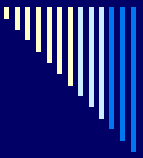


## Public Roles in Promoting Broadband

- ***Government participation at all levels:***
  - National, regional and city-wide initiatives and community participation projects have been successful in expanding access.
  - In some cases, governments have chosen to provide, or to subsidize, infrastructure to stimulate the economic development of a particular area.

---

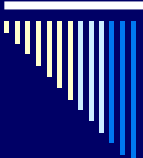
10



## Best Practice Guidelines for the Promotion of Low-Cost Broadband and Internet Connectivity

- In December, 2004 the Best Practice guidelines was produced at the Global Symposium for Regulators. These guidelines describe what the foundation for an enabling regulatory regime should be and how governments can help to stimulate growth in the telecommunications market.
- A sampling of some of the recommendations are as follows:
  - “We encourage political support at the highest government levels with such support expressed in national or regional policy goals. These include an effective, separate regulator insulated from political interference, a transparent regulatory process, and adoption and enforcement of clear rules.”
  - “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.”

11



## Best Practice Guidelines for the Promotion of Low-Cost Broadband and Internet Connectivity

- Recommendations continued...
  - “We encourage regulators to allocate adequate spectrum to facilitate the use of modern, cost effective broadband radiocommunications technologies. We further encourage innovative approaches to managing the spectrum resource such as the ability to share spectrum or allocating on a license-exempt non-interference basis.”
  - “We urge regulators to conduct periodic public consultations with stakeholders to inform the regulatory decision-making process.”
  - “We recommend that regulators carefully consider how to minimize licensing hurdles.”
  - “We encourage regulators to provide a clear regulatory strategy for the private sector in order to reduce uncertainty and risk, and remove any disincentives to investment”

12



## Currently Being Developed: Best Practice Guidelines for the Broadband Access in Developing Countries

- ❑ The Rapporteur and Vice-Rapporteurs of Question 20-2/2 are currently working together to produce a draft for the Best Practice Guidelines.
- ❑ The previous guidelines developed at the 2004 Global Symposium for Regulators will be referred to.
- ❑ Administrations and sector members are encouraged to submit contributions with suggested text and content.

13



We would like to see administrations from around the world participate in the ITU-D's Study Question 20 -2/2 on Broadband Access technologies.

Contributions from developing countries that describe their experiences with Broadband implementation and use will be very important for the outcome of the next study cycle .

**THANK YOU!**

14