International Telecommunication Union

ITU Regional Development Standardization Forum on "Bridging the ICT standardization gap in developing countries"

Activities of the ITU-D on ICT

Accra, Ghana, 26-30 May 2008

Désiré Karyabwite

IP Coordinator, TND

ITU-BDT

E-mail: desire.karyabwite@itu.int

ITU in the Information Society

5 regional offices, 8 area offices HQ in Geneva, Switzerland

Moscow

Geneva

Cairo

Bridgetown

Tegucigalpa

Dakar

Addis Ababa

Bangkok

Yaounde

Brasilia

Jakarta

Santiago

Harare

Regional Office

Area Office

Our Framework – An Action Plan of 6 Programmes

- Regulatory Reform

- Information and communication infrastructure and technology development

- E-strategies and ICT applications

- Economics and finance including costs and tariffs

- Human capacity building

- Least developed countries and small island developing states, and emergency telecommunications

Cross-Cutting Initiatives

Activities
- Statistics and information on telecommunications/ICT
- Partnerships and promotion

Special initiatives
- Private Sector
- Gender
- Young people and children
- Indigenous people and communities
- People with disabilities

Regional initiatives
- Africa / Americas / Arab Region / Asia-Pacific / CIS

WSIS Implementation
- WSIS Action Lines

Priority Areas

Enabling Environment for ICT investment
(Regulatory and policy harmonization, training,toolkit, best practices, global symposia)

ICT Infrastructure/Access
(Rural connectivity, regional interconnectivity, Tele-centres, village phone/shared access, Low cost connectivity, shared infrastructure

ICT Applications and Cybersecurity
(E-government, cybersecurity, e-health, e-education)

Capacity Building
(Centres of Excellence, Internet Training Centres, Scholarships, internships, employability)

Emergency telecommunications(Standards, network rehabilitation, frequency allocation, collaboration for rapid deployment of equipment etc.)

Key Development Issues
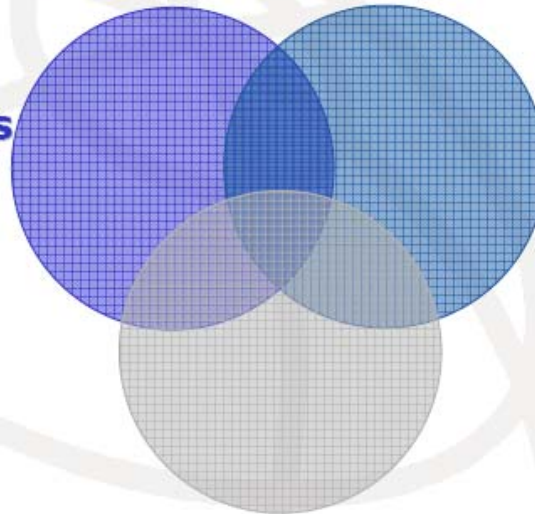
Percentage of households with ICTs, latest available data, Africa
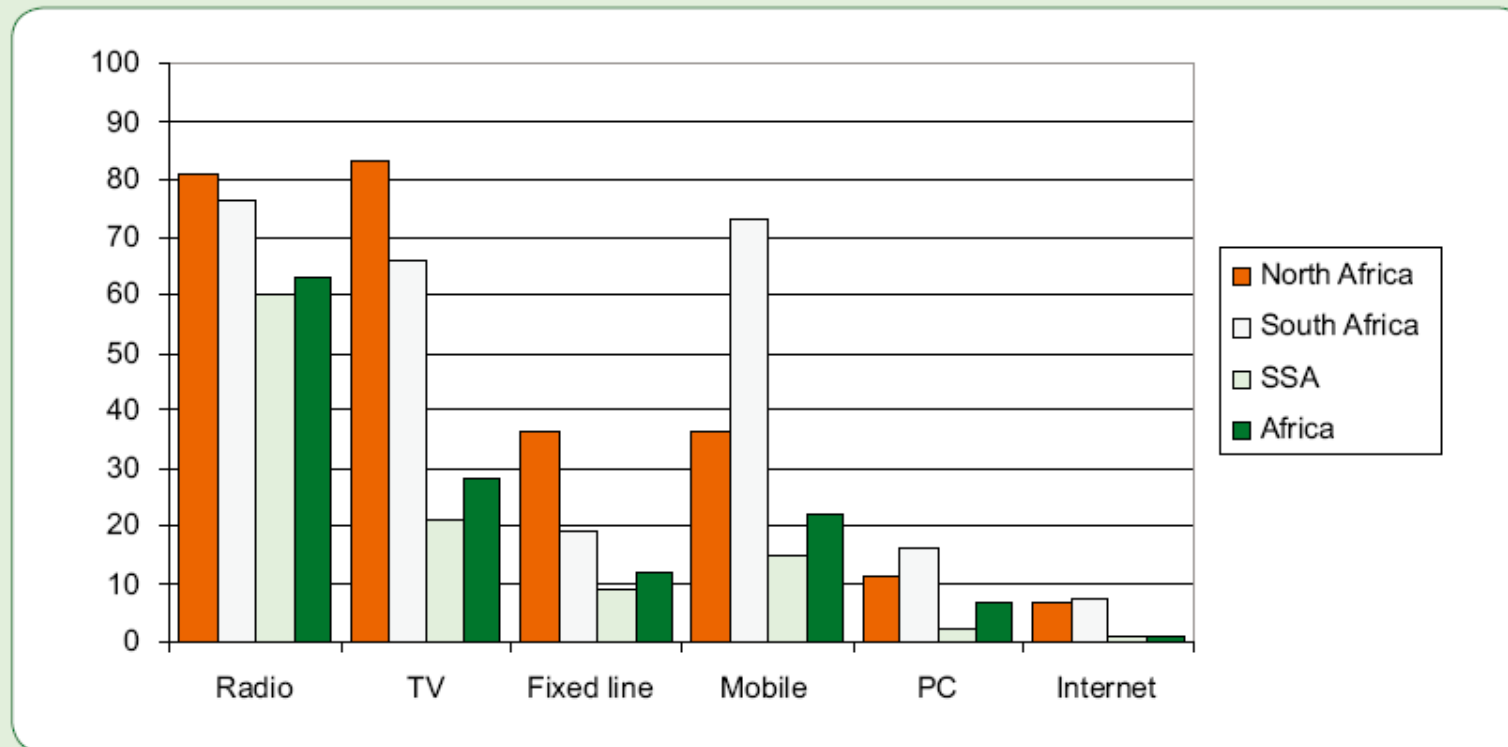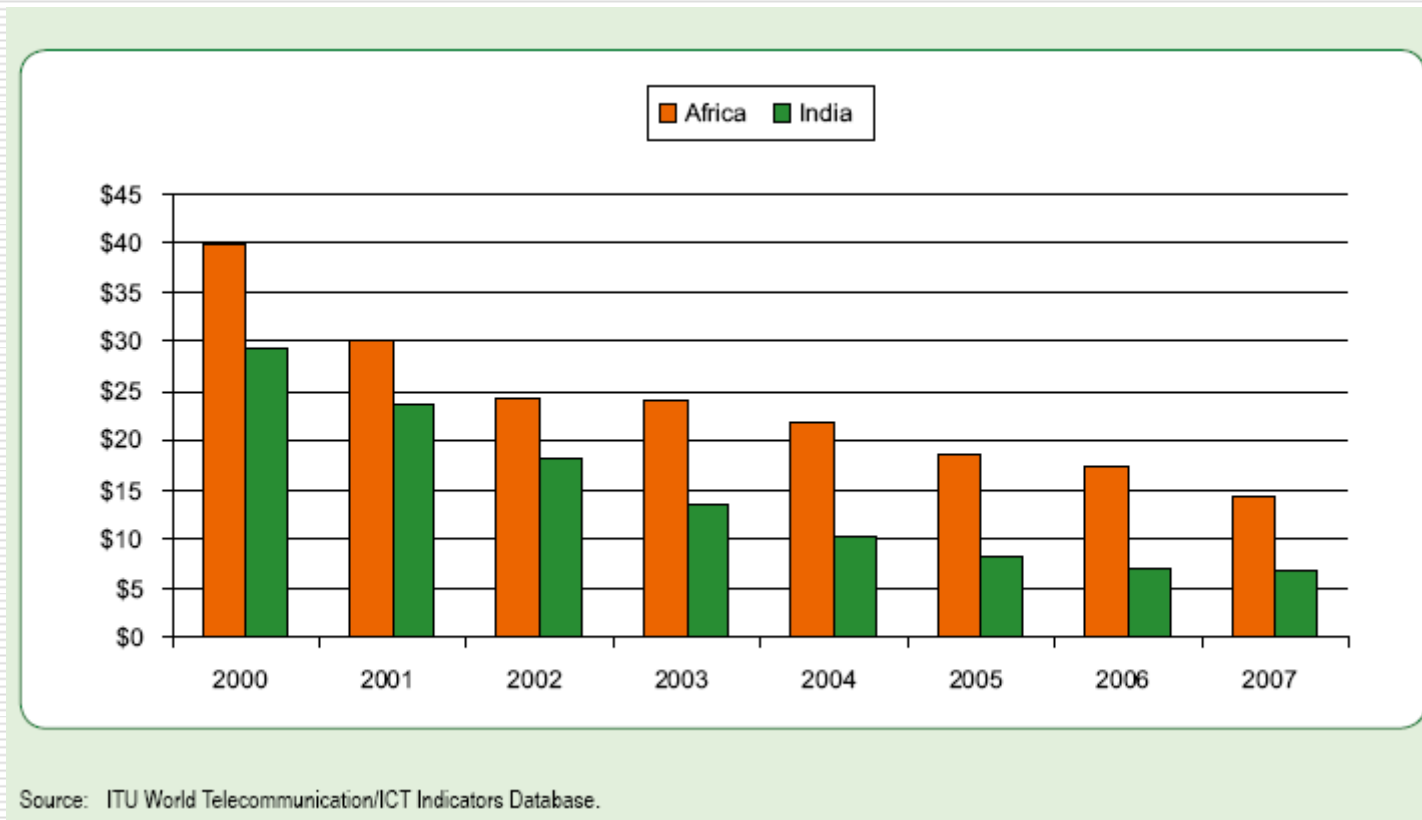

Note: This analysis is based on a simple average of all those countries with data available.
Source: ITU, adapted from national household surveys from national statistical offices.
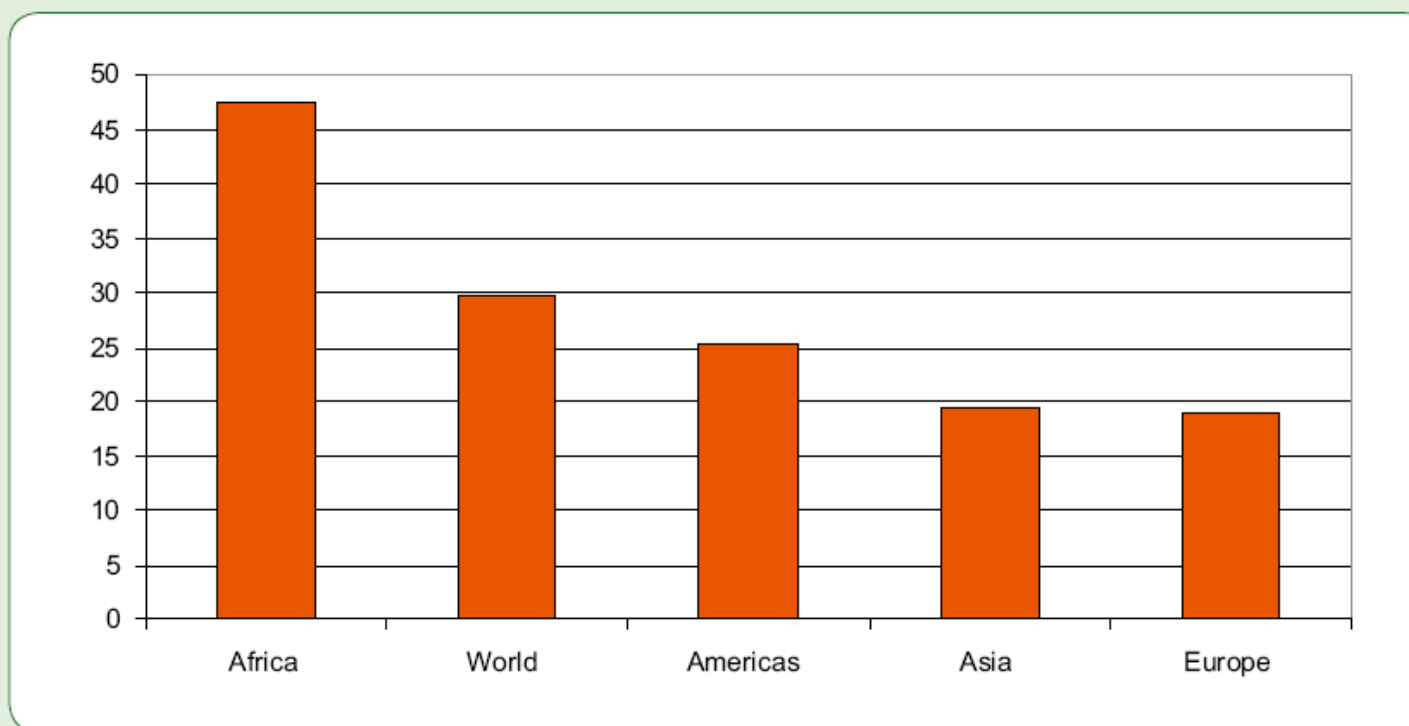
Mobile ARPU, US$, Africa in comparison with India

Source: ITU World Telecommunication/ICT Indicators Database.

Price basket for Internet (US$ per month), 2006

Source: ITU.

Status of VoIP, Africa, 2007

Are users allowed to make voice over IP phone calls?

- No 47%
- Yes 53%
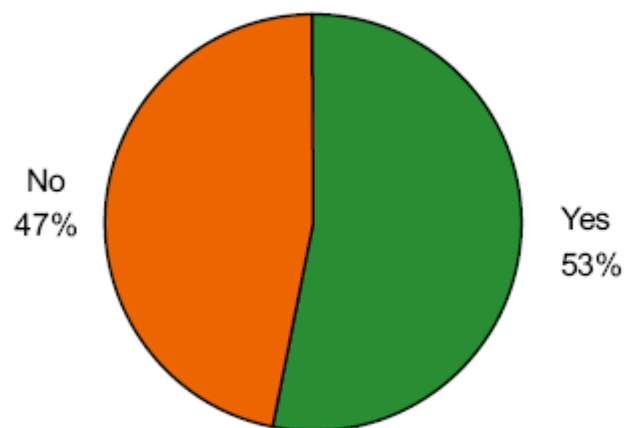
Does your country have policies or regulations in place that deal with VoIP ?

- No 33%
- No data 42%
- Yes 25%
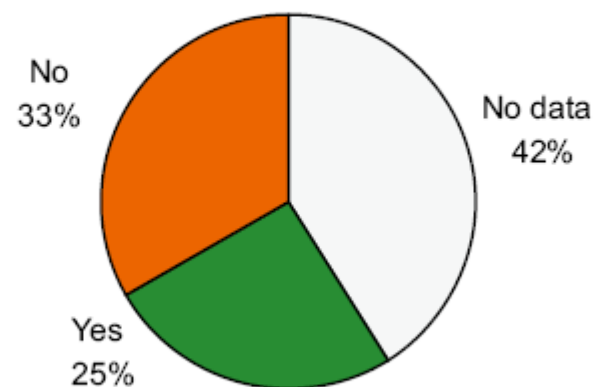
Source: ITU World Telecommunication Regulatory Database.

Bringing the benefits of ICTs to the population

Bringing the benefits of ICTs to the population

Secure e-mail: Security features like digital signatures and encryption.

E-Mandate: Through the use of Public Key Infrastructure (PKI) technologies, a secure tool for the processing of postal mandates via Internet in post offices

Training

Bringing the benefits of ICTs to the population

Public Internet Access: equip and connect to Internet 16 sites, of which 5 are located in Bishkek and 11 are located in provinces.

E-Government web portal: provide information from the government in a systematic and structured way to the citizens of the Republic

E-Agriculture: - Enable rural farmers in Madaniyat to have access to information on the price of their produce- Vital information on agriculture to the rural population.

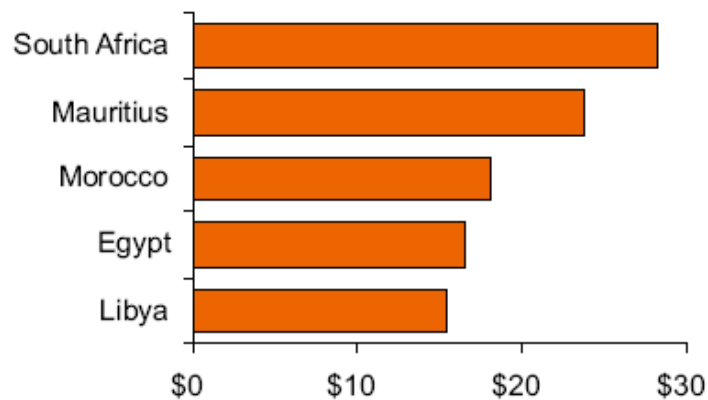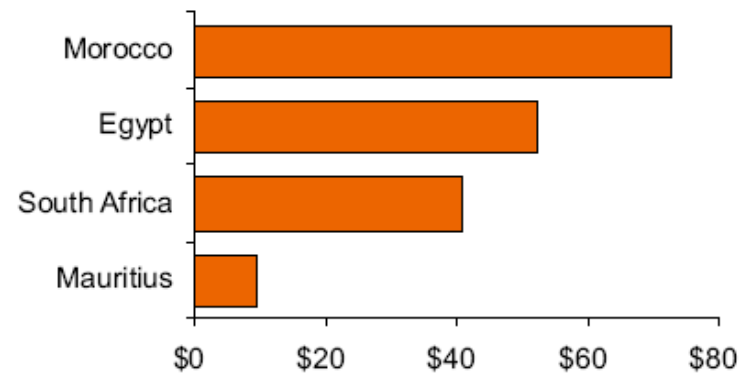# Bringing the benefits of ICTs to the population: connecting schools

Broadband brings changes: broadband pricing in Africa, 2007, US

Cheapest monthly DSL pricing in Africa, 2007, US$

Country	Price
South Africa	~$28
Mauritius	~$24
Morocco	~$18
Egypt	~$17
Libya	~$16

Cheapest monthly W-CDMA pricing in Africa, 2007, US$

Country	Price
Morocco	~$73
Egypt	~$52
South Africa	~$41
Mauritius	~$10

Note: In the left chart, prices refer to 256 kbps downstream capacity, except for South Africa (384 kbps).
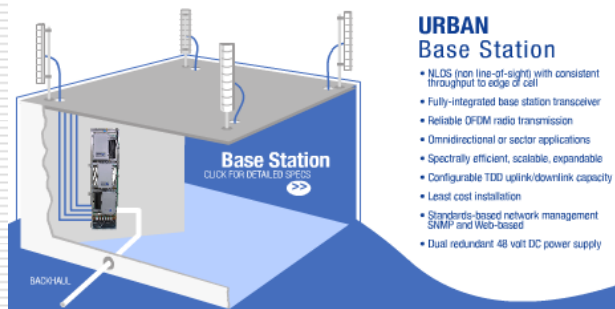Source: ITU World Telecommunication/ICT Indicators Database.
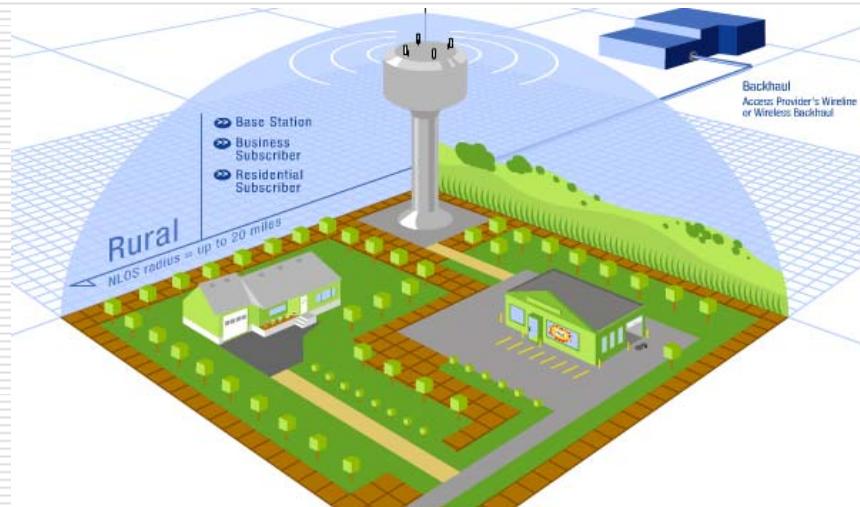
Broadband brings changes

- ☐ Wireless connectivity

  - ■ Pre-WiMax solutions
  - ■ Wi-Max (IEEE 802.16e, mobility)
    - ☐ Range: theoretically 50 km, in practice 15 km
    - ☐ Bandwidth: theoretically 80 Mbps, in practice 20 Mbps (within the cell)
  - ■ CDMA 2000: 1xEVDO
    - ☐ Range: theoretically 30 km, in practice 10 km
    - ☐ Bandwidth: theoretically 2 Mbps, in practice < 2 Mbps

Wireless Broadband Urban Connectivity

Wireless Broadband in Rural Areas

Conclusions

- ☐ Challenges :
- - Internet Backbones and –(QoS)
- - Financial $$$ (Internet Only or Internet + Voice + Mobility)
- ☐ Core network: Designing
- ☐ Appropriate International Bandwidth
- ☐ Transport (OF-DWDM)
- ☐ Access Strategies: Internet Access, Pre-WiMax, WiMax - (Interoperability and mobility?)
- ☐ Broadband Licensing
- ☐ Connecting the World by 2012

THANK YOU FOR YOUR ATTENTION

desire.karyabwite@itu.int

IP Coordinator, TND-BDT

Tel: +41 22 730 5009

Fax: +41 22 730 5484

http://www.itu.int/ITU-D/