



INTERNATIONAL TELECOMMUNICATION UNION

**TELECOMMUNICATION
DEVELOPMENT BUREAU**

**Document INF/031-E
26 February 2009
Original: English**

7TH WORLD TELECOMMUNICATION/ICT INDICATORS MEETING, CAIRO, EGYPT, 3-5 MARCH 2009

FOR INFORMATION

SOURCE: Ministry of Communications, Ghana

TITLE: State of ICT statistics collection and dissemination in Ghana

7th ITU World Telecommunication / ICT Indicators (WTI) Meeting, Cairo, 3-5 March, 2009

Topic

State of ICT statistics collection and dissemination in Ghana.

The Republic of Ghana is situated in West Africa and borders Côte d'Ivoire (Ivory Coast) to the west; Burkina Faso to the north; Togo to the east, and the Gulf of Guinea to the south



Map of Ghana

Ghana is divided into ten (10) administrative regions and has about one hundred and forty districts each with its own District Assembly.

Population:	23million
Land Area:	92,100 Square km
Population density	92.2 persons per sq km
Rural / Urban %	56.2/ 43.8

THE STATE OF ICT STATISTICS COLLECTION AND DISSEMINATION.

The issue s are:

- ✚ Why the need to collect data
- ✚ How does the Ministry of communications collect statistics
- ✚ What statistics is collected
- ✚ Dissemination- demand for ICT related data
- ✚ Analysis
- ✚ Usefulness of the data, in terms of who gets what.
- ✚ Conclusion.

THE MINISTRY'S STATISTICAL OBLIGATION: WHY

The Monitoring and Evaluation system design clarifies the scope of information requirements and major users of information, responsibility for data collection, analysis and reporting, frequency of reporting and appropriate formats for reporting.

Availability of appropriate information will ensure the following:

- Demonstrate accountability and transparency at all levels of management: The citizenry, and civil society organizations, expect institutions to be values-based and results-driven. To this end M&E will set out levels of performance and measure the appropriateness of resource allocation and utilization of public funds.
- To determine specific implementation problems facing the project in order to diagnose the causes and suggest practical solutions to them.

HOW IS DATA COLLECTED

The Sector agencies Sector agencies , including Ghana-India Kofi Annan Centre of Excellence in ICT, Ghana Investment Fund for Telecommunications (GIFTEL) , Ghana Information and Communications Technology Directorate (GICTeD, Ghana Multimedia Centre (Technological Incubators) , National Communications Authority and Ghana Meteorological Agency are regularly informed to provide the needed information, usually based on a particular format.

The telecom service providers and the National Communication Authority also collect data for specific purposes.

There is also:

online research

- annual reports
- Field visit reports
- Police CID reports
- Other Government Agencies

WHAT IS COLLECTED

Infrastructure Access

- Total telephone subscribers
- Total telephone subscribers per 100 inhabitants
- Fixed line and mobile phone subscribers (per 1,000 people)
- Telephone subscribers
- Telephone mainlines (per 1,000 people)
- Main lines per 100 inhabitants
- % of automatic main lines
- % of digital mainlines
- % of residential main lines

- % of telephone faults cleared by next working day
- % of urban main lines
- Integrated Services Digital Network (ISDN) Channels
- Integrated Services Digital Network (ISDN) subscribers
- # Leased circuits
- # Public pay phones
- Main telephone lines in largest city
- Telephone coverage of population (%)
- Cellular mobile telephone subscribers
- Cellular subscribers per 100 inhabitants
- Mobile phone subscribers (per 1,000 people)
- Population covered by mobile telephony (%)
- Cellular mobile subscribers - prepaid card
- Digital cellular subscribers
- Daily newspapers (per 1,000 people)
- Cable television subscribers
- Radio sets
- Television equipped households
- Television receivers
- Estimated Direct to Home (DTH) satellite receivers
- Telex subscribers

Access by Households

- % of households with a telephone
- % of households with a mobile cellular telephone
- % of homes with Internet
- % of homes with a Personal Computer
- % of households with a radio
- % of households with a television
- % of households with electricity

Affordability

- Telephone average cost of call to US (US\$ per three minutes)
- Cost of three minute local call - peak time (in LCU and US\$)
- Cost of a local 3 minute call (off-peak rate) (in LCU and US\$)
- Residential monthly telephone subscription (in LCU and US\$)
- Residential telephone connection charge (in LCU and US\$)
- Business telephone connection charge (in LCU and US\$)
- Business telephone monthly subscription (in LCU and US\$)
- Analog cellular connection charge (in LCU and US\$)
- Analog cellular monthly subscription charge (in LCU and US\$)
- Analog cellular 3minute call (peak rate) (in LCU and US\$)
- Analog cellular -cost of 3 minute local call (off-peak rate) (in LCU and US\$)
- Cellular - cost of 3 minute local call (off-peak) (in LCU and US\$)
- Price basket for residential fixed line (US\$ per month)
- Price basket for mobile (US\$ per month)

- Mobile cellular tariffs (100 minutes of use per month) in US\$
- Mobile cellular tariffs (100 minutes of use per month) as % of per capita income
- Cost of international bandwidth

Quality

- Telephone faults per 100 main lines

Institutional Efficiency and Sustainability

- Telephone employees, total
- Telephone subscribers per employee
- Mobile communications staff
- # of female telecommunication staff
- Total full-time telecommunications staff
- Waiting list for main lines

Investment/ Revenue

- Total income from telephone service (in LCU and US\$)
- Telecommunications investment (% of revenue)
- Telecommunications investment (in LCU and US\$)
- Total telecom investment (capital expenditure) (in LCU and US\$)
- Annual investment for telephone service (in LCU and US\$)
- Mobile communication investment (in LCU and US\$)
- Telecommunications revenue (in LCU and US\$)
- Telecommunications revenue (% GDP)
- Mobile communication revenue in (LCU and US\$)

Telecom Usage/ Traffic

- Total national telephone traffic (calls)
- Total national telephone traffic (minutes)
- Number of local telephone (calls)
- Number of local telephone (minutes)
- Connection capacity of local exchanges
- Number of national long distance telephone (minutes)
- Number of national long distance telephone calls
- International voice traffic (minutes per person)
- International voice traffic (out and in, minutes)
- International incoming telephone traffic (calls)
- International incoming telephone traffic (minutes)
- International outgoing telephone traffic (calls)
- International outgoing telephone traffic (minutes)
- International telephone circuits

Regulatory environment - Data security

- # incidents of cyber crime per year
- Existing IP legislation
- Laws relating to ICT use
- Secure Internet servers
- Secure Internet servers (per 1 million people)

Computer and Internet usage

- Internet users
- Internet subscribers
- Internet users per 100 inhabitants
- Internet users (per 1,000 people)
- % female Internet users
- Percentage of localities with public Internet access centres (PIACs) by number of inhabitants (rural/ urban)
- Broadband subscribers
- Broadband subscribers (per 1,000 people)
- Cable modem Internet subscribers
- DSL Internet subscribers
- Number of internet hosts
- International Internet Bandwidth (Mbps)
- International Internet bandwidth (bits per person)
- # Internet hosts in urban areas
- # Internet users per 1000 people in urban areas
- # Internet users per 1000 people in rural areas
- Proportion of individuals who used the Internet (from any location) in the last 12 months
- Location of individual use of the Internet in the last 12 months: (a) at home; (b) at work; (c)place of education; (d) at another person's home; (e) community Internet access facility; (f) commercial Internet access facility; (g) others
- Frequency of individual access to the Internet in the last 12 months (from any location): (a) at least once a day; (b) at least once a week but not every day; (c) at least once a month but not every week; (d) less than once a month
- Price basket for Internet (US\$ per month)
- Internet access tariffs (20 hours per month). in US\$
- Internet access tariffs (20 hours per month). as % of per capita income
- Number of personal computers (thousand)
- Personal computers (per 1,000 people)
- # of computers per 1000 people in urban areas
- # of computers per 1000 people in rural areas
- Proportion of individuals who used a computer (from any location) in the last 12 months

ICT Usage by type of activity

- Information about health and health care services
- General web browsing
- Communications
- Purchasing goods and services
- Internet banking
- Info on education opportunities
- E-learning activities
- E-learning activities
- Entertainment

- Access to online news, books, magazines

ITES

- Total ITES revenue (% of GDP)
- Total ITES revenue
- Total ITES SMEs revenue
- Total revenue from ITES exports
- ICT goods exports as a % of total exports
- Total FDI in ITES sector
- High-technology exports (% of manufactured exports)
- High-technology exports (US\$)
- Exports - telecommunication equipment (US\$)
- Imports - telecommunication equipment (US\$)

ITES - Industry data

- # of IT companies
- # of BPO companies
- # of jobs in IT industry
- # of jobs in BPO industry
- % of jobs held by women in BPO industry
- % of total private sector workforce involved in ICT sector
- # of ISO certified companies
- # of CMM/CMMI certified companies
- Value added in the ICT sector (as % of total business sector value added)

ITES Human Resources

- Total IT labor force
- # of IT professionals trained annually
- Total BPO labor force
- # of BPO professionals trained annually
- # of accredited training institution providing training in IT and BPO skills
- Cost of IT labor
- Cost of BPO labor

Government to Government (G2G) Availability and Usage

- % of ministries using computer
- % of government employees using computers
- % of ministries using internet
- % of government employees using internet
- % of businesses with web presence

Government to citizen (G2C) Availability

- % of government services available to citizens electronically
- % of citizens aware of availability of electronic government services

G2C Usage

- % of population using electronic government services
- % of users have positive experience using electronic government services

Government to Business (G2B) Availability

- % of government services available to businesses electronically
- % of businesses aware of availability of electronic government services

G2B Usage

- % of businesses using electronic government services
- % of businesses have positive experience using electronic government services

E-COMMERCE

Business to Business (B2B)

- % of businesses selling services and goods via Internet
- % of businesses buying services and goods via Internet

Business to citizen (B2C)

- # of people per 1000 buying goods and services online
- # of people per 1000 using mobile phone for e-commerce

E-Banking

- # of banks providing electronic services
- Usage of mobile phones for financial transactions

Penetration of ICT in private sector

- % of businesses using computers
- % of employees using computers
- % of businesses using the Internet
- % of employees using the Internet
- % of businesses with web presence
- % of businesses with an intranet
- % of businesses receiving orders over the Internet
- % of businesses placing orders over the Internet
- % of businesses with Local Area Network (LAN)
- % of businesses using the Internet by type of activity:
 - Sending and receiving email
 - Getting information: (a) about goods or services; (b) from government organizations/ public authorities via websites or email; (c) other information searches or research activities
 - Performing Internet banking or accessing other financial services
 - Dealing with government organizations/ public authorities
 - Providing customer services
 - Delivering products online




ICT use in Education

- Schools connected to the Internet (%)
- # of children with internet access

Others

- ICT expenditure (% of GDP)
- ICT expenditure (current US\$)
- ICT expenditure per capita (US\$)

DATA STORED INCLUDE:

-  Annual Reports
-  Industry / Country operators' information (contact details, operator functions short descriptions, etc)
-  Information is update systematically to cope with the fast changing telecom / ICT environment.

DATA COLLECTION- CHALLENGES

1. Not all the agencies return nor answers to the mails instructing them to provide the needed information on regular basis
2. Some agencies do not follow the laid down format in providing the needed information. This slows down the process.
3. Operators' data or annual reports sometimes not available.
4. The culture of storing and retrieving soft and hard copies of data and statistics is actually now developing slowly.

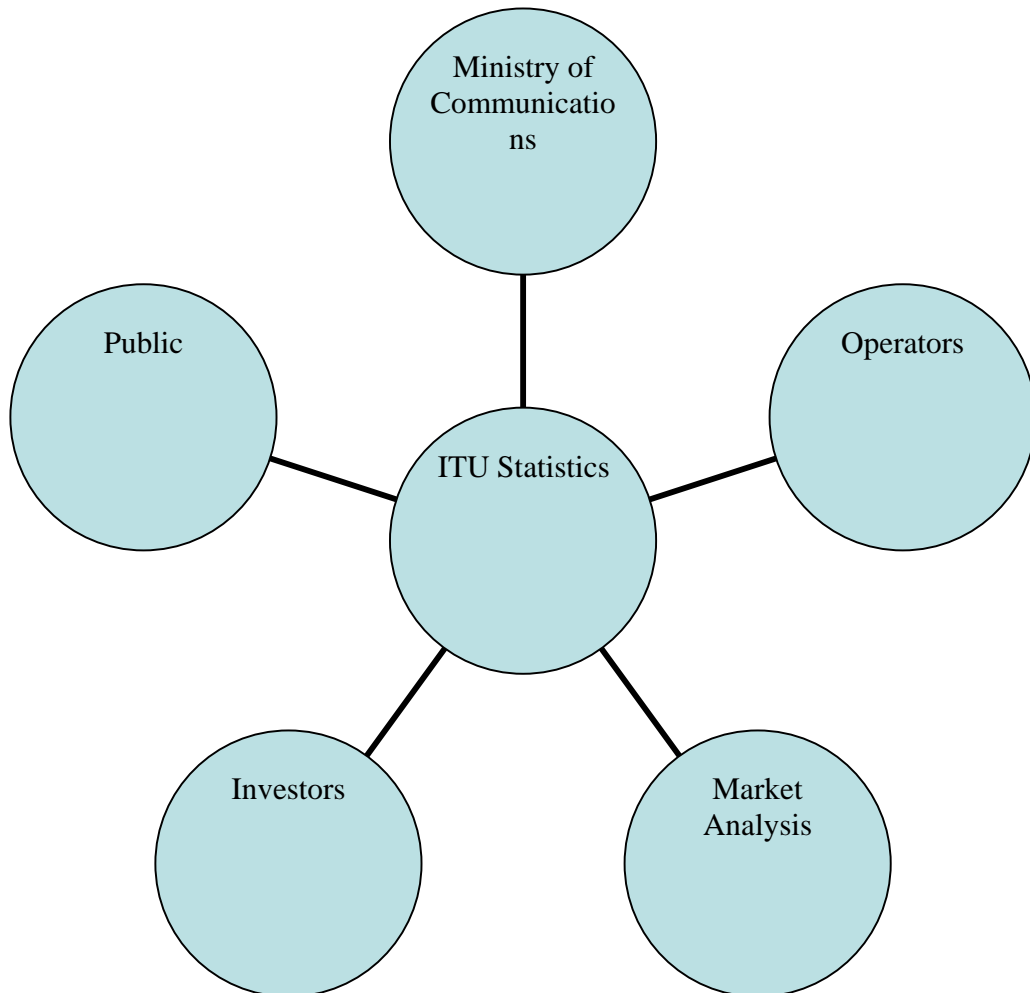
DATA DISSEMINATION

1. Quarterly reports emanating from this Ministry and its sector agencies are produced on very regular basis to the Office of the President and the Office of the Head of Civil Service on bi – annual basis for monitoring and evaluation purposes.
2. Information is also made available to Non Governmental and Civil Society Organizations' when requested for.

WHO
?

GETS

WHAT



RECOMMENDATIONS

Collaboration between different ICT players is crucial in the collection and dissemination of telecom / ICT data.

Continued dialogue between the Ministry of Communications, the National Communications Authority and the service providers on the indicators appropriate for Ghana's ICT policy needs

There is the need to build capacity in the collection, verification and dissemination of telecom data in the relevant agencies

Information and knowledge should be disseminated to all stake holders who need it