

**10th World Telecommunication/ICT
Indicators Meeting (WTIM-12)
Bangkok, Thailand, 25-27 September 2012**



Information document

**Document INF/25-E
25 September 2012**

English

SOURCE: Nepal Telecommunications Authority, Nepal

TITLE: ICT Indicators - Nepal at a Glance

ICT Indicators - Nepal at a Glance

Prepared by

**Udaya Raj Regmi
Deputy Director
Engineering Section / Technical Department
Nepal Telecommunications Authority**

September 2012

Table of Contents

1. General Introduction.....	3
2. Introduction	3
2.1. Objectives of CBS.....	4
2.2. Main Functions of CBS.....	4
2.3. Historical Background.....	5
3. Current Scenario	5
4. Measurement of WSIS targets.....	6
5. Conclusion.....	9
References.....	9

1. General Introduction

Federal Democratic Republic of Nepal is a small land-locked Himalayan country that lies between China and India spanning an area of 147,181 sq. km. in South Asia. Administratively, the country is divided into 5 Development Regions, 14 Zones and 75 Districts. Apart from this, there are 3,915 Village Development Committees (VDCs) and 58 Municipalities. VDCs are further divided into Wards, the smallest administrative division of the country. Each VDC consist of nine wards, and number of wards in Municipalities depends on their size. Topographically, Nepal is divided into three regions: the mountain, the hill and the plain region, also known as Terai. About 83% of the country is rugged terrain and only 17% is flat land.



Fig.: Map of Nepal

The population of the country as per the census carried out in June 2011 is 26.6 million (6.7% in Mountain, 3.1% in Hill and 50.2% in Terai) with average family member per household dropping to 4.7 from 5.44 in the last ten years. The percentage of population residing in urban and rural areas is 17% and 83% respectively. The average population growth rate in the past ten years is around 1.4%. The average life expectancy is just above 67 years. The female to male ratio is 94.41%. Absent population of Nepal is recorded as 1.92 million, which means significant percentage of population is abroad on foreign employment, which is a major source of remittance into the country.

2. Introduction

Nepal is relatively slow to grasp the advantages of the Information and Communication Technologies. Likewise, as is the world trend, getting the ICT related information is still difficult as this encompasses a variety of information viz. Telecommunication, Broadcasting, Information Technology, Community Access, etc. The problem becomes more difficult when the responsibility of collecting and disseminating such information is shared among number of entities, as is the case in Nepal. Nepal Telecommunications Authority (NTA) is primarily collecting and disseminating information related to Telecommunication and partly on Information Technology and Community Access.

However, the prime responsibility to carry out the collection, consolidation, processing, analysis, publication and dissemination of statistics falls under Central Bureau of Statistics (CBS) which was established in 1959 under Statistics Act, 2015 B. S. It is under the National Planning Commission Secretariat (NPCS) of Nepal and serves as a national statistical organization of Government of Nepal. It generates timely and reliable socio-economic statistics mainly through the operation of censuses and surveys. The main objective of setting up CBS is to avail data to NPCS and other Government agencies for the formulation of national plans, policies and also produces national account estimates to measure the economic growth of the country. It carries out different household surveys and censuses regularly to assess the socio- economic condition of the country. The major tasks, which CBS has been performing, are decennial population census, agriculture census and quinquennial manufacturing establishment census. In addition, many household surveys like living standard surveys, labor force surveys and multiple indicator surveillance are indispensable tasks, which CBS has been accomplishing. The role of the CBS is always decisive for the effective functioning of the national statistical system as a whole. It promotes collaborative research efforts among members of academic community, data producers and users. It has a prominent role in developing statistical system and maintaining statistical standard in the country.

2.1. Objectives of CBS

1. Provide timely and quality statistics to Government for the formulation of plan and policy and acquires the information about socio-economic condition of the country.
2. Processing, analysis, publication, dissemination and protection of collected data.
3. Coordinate with various agencies involved in data collection, processing and analysis to avoid statistical discrepancies.
4. Develop standard statistical system by performing a leading role in statistical activities.
5. Develop statistical manpower.

2.2. Main Functions of CBS

1. Provide necessary statistics to Government for the formulation of plan and policy.
2. Collection, processing and analysis of data related to the socio-economic sector.
3. Develop definitions and scientific methodologies for reliable data collection and implementation.
4. Coordinate various data collection agencies and avoid duplications of efforts to generate the same statistics and develop consolidated statistical system.
5. Investigation of various statistical sectors for the need of the Government and produce these statistics.
6. Protection of statistical records.
7. Investigation of new technologies in order to make more scientific, reliable and useful data collection, processing and analysis method.
8. Coordinate with various agencies by maintaining consistency and uniformity for quality of national level statistics.
9. Organize training, seminar and workshop on statistical fields at national and international level.

10. Play advisory role to control and coordinate various statistical activities.
11. Develop basic statistical manpower.
12. Develop and implement the system to provide regular and reliable statistics through Branch Statistics Offices.

2.3. Historical Background

NTA started collecting and disseminating ICT statistics since October 2003 in the form of Management Information System (MIS) which was published quarterly before, is a monthly issue at present. It consists of Telecom data as well as the NTA activities in the past month. It continued in its original form with slight modification till 11th issue. In the year July 2006, the 12th issue got major overhauling as collecting and disseminating ICT statistics was given more importance with section dedicated for it. Likewise, each service category of Telecommunication service viz. basic telecommunication, cellular communication, Internet, GMPCS, Rural Telecom Service, etc. were analysed separately comparing with the adjacent quarters. Consequently, in the year February 2007, information on Basic Core ICT Indicator was added after NTA started collecting information on it following NTA's participation in the Joint UNCTAD-ITU-UNESCAP Regional Workshop on Information Society Measurements in Asia-Pacific, Bangkok, 26-28 July 2006.

Likewise, in February 2008, the previous MIS was separated into two parts namely, "Management Information System", which contains the activities of NTA and "Quarterly Performance Indicator of Telecom Sector/Services" which contains the information of the Telecom sector of the past quarter, solely dedicated to disseminate the ICT statistics. This was done to give prime focus on the collection and dissemination of ICT statistics segregating it from the regular activity of NTA.

Furthermore, the UNCTAD mission to assist the Nepalese Government on ICT Measurement in June, 2008 helped us in strengthening our expertise in collection and dissemination of ICT statistics in much better way and in making our understanding clearer on the number of data to be collected. As advised to the mission, NTA is in the process of collecting data that are not yet collected and disseminated, but it has not materialised yet.

3. Current Scenario

As we are well aware that data collection is a tedious job and it is time as well as resource consuming for the operators too. So it is necessary to collect those data which are very much essential and that are valuable for the general public as well as stakeholders in taking appropriate decisions. Although NTA published the Quarterly Performance Indicator of Telecom Service till August 2008, it was discontinued after that, primarily because of difficulty in collecting such data regularly.

However, at present NTA collects and disseminates the following primary information regarding ICT statistics in its monthly Management Information System (MIS). Likewise, information on Quality of Telecommunication service with respect to Network performance and billing is also disseminated.

Available Voice Telephony Services (As of July 2012)

Services Operators	Fixed		Mobile		Others		Total
	PSTN	WLL	GSM	CDMA	LMS	GMPCS	
NDCL	628,575	131,395	6,166,814	829,534	-	-	7,756,318
UTL	-	71,339	-	-	565,965	-	637,304
NCELL	-	-	8,338,065	-	-	-	8,338,065
STM	5,192	-	-	-	155	-	5,347
NSTPL*	-	2,611	-	-	143,708	-	146,319
Smart	598	-	-	-	395,138	-	395,736
Others (GMPCS)	-	-	-	-	-	1,742	1,742
Total	634,365	205,345	14,504,879	829,504	1,104,966	1,742	17,280,831
	839,710		15,334,413		1,106,708		
Tele-Density							
Services					Penetration Rate %		
Fixed					3.15		
Mobile					57.60		
Others (LM, GMPCS)					4.15		
Total					64.91		

Data Internet Services (As of July 2012)

Services	Subscribers				Total
	NDCL	UTL	NCELL	ISPs	
Dialup (PSTN +ISDN)	4,532	-	-	10,547	15,079
Wireless Modem, Optical Fibre Ethernet	-	-	-	45,602	45,602
Cable Modem, Cable etc.	-	-	-	17,968	17,968
ADSL	92,302	-	-	-	92,302
GPRS	1,870,097	-	2,813,824	-	4,683,921
CDMA 1X	111,890	76,329	-	-	188,219
Total	2,078,821	76,329	2,813,824	74,117	5,043,091
Internet Penetration Rate %					18.94

Public Call Centres (As of July 2012)

Services	Subscribers
Rural PCO's of STM Telecom Sanchar Pvt. Ltd.	2,024
Rural PCO's of SMART Telecom Pvt. Ltd.	598
Total	2,622

Note: Projected population as per Central Bureau of Statistics is taken as 26,620,809

4. Measurement of WSIS targets

A very preliminary study was carried out by NTA in May, 2011 to find out the status of WSIS targets in the country. As the study was first of its kind, it cannot be and should not be taken as a complete picture of the ICT status in Nepal in line with the WSIS targets.

The brief summary of the overall status on the penetration and use of ICT in Nepal in line with WSIS targets found through that study is shown as below.

WSIS Targets	Proposed target revisions for monitoring progress	Most relevant WSIS action lines	Proposed indicators for monitoring progress*	Overall Status **
1. To connect villages with ICTs and establish community access points	To connect all villages with ICTs and establish community access points	C2. Information and communication infrastructure C3. Access to information and knowledge C4. Capacity building	Indicator 1.3: Proportion of households with Internet access, by type of access, by urban/rural. Indicator 1.4: Proportion of individuals using the Internet, by location, by urban/rural.	Medium
2. To connect universities, colleges, secondary schools and primary schools with ICTs	To connect all universities, colleges, secondary schools and primary schools with ICTs	C2. Information and communication infrastructure C3. Access to information and knowledge C7. E-learning	Proportion of schools with a radio used for educational purposes (for ISCED levels 1-3) Proportion of schools with a television used for educational purposes (for ISCED levels 1-3) Learners-to-computer ratio (for ISCED levels 1-3) Proportion of schools with Internet access (for ISCED levels 1-3), by type of access (narrowband, broadband)	n.a
3. To connect scientific and research centres with ICTs	To connect all scientific and research centres with ICTs	C2. Information and communication infrastructure C3. Access to information and knowledge C7. E-science	Indicator 3.1: Proportion of public scientific and research centers with broadband Internet access. Indicator 3.2: Presence of a national research and education network (NREN), by bandwidth (Mbit/s). Indicator 3.3: Proportion of public scientific and research centers with Internet access to a NREN.	Low
4. To connect public libraries, cultural centres, museums, post offices and archives with ICTs	To connect all public libraries, cultural centres, museums, post offices and national archives with ICTs	C3. Access to information and knowledge C4. Capacity building C8. Cultural diversity and identity, linguistic diversity and local content	Indicator 4.1: Proportion of public libraries with broadband Internet access. Indicator 4.2: Proportion of public libraries providing public Internet access. Indicator 4.3: Proportion of public libraries with a web presence. Indicator 4.4: Proportion of museums with broadband Internet access. Indicator 4.5: Proportion of museums with a web presence. Indicator 4.6: Proportion of post offices with broadband Internet access. Indicator 4.7: Proportion of post offices providing public Internet access. Indicator 4.8: National archives organizations with broadband Internet access Indicator 4.9: National archives organizations with a web presence. Indicator 4.10: Proportion of items in the national archives that have been digitized. Indicator 4.11: Proportion of digitized items in the national archives that are publicly available online.	Low
5. To connect health centres and hospitals with ICTs	To connect all health centres and hospitals with ICTs	C2. Information and communication infrastructure C7. E-Health	Indicator 5.1: Proportion of public hospitals with Internet access, by type of access. Indicator 5.2: Proportion of public health centres with Internet access, by type of access.	n.a
6. To connect all local and central government departments and	To connect all local and central government	C1. The role of public governance authorities and all	Indicator 6.5: Proportion of central government organizations with Internet access, by type of access.	Low

establish websites and e-mail addresses	<i>departments and establish websites and e-mail addresses</i>	stakeholders in the promotion of ICTs for development C2. Information and communication infrastructure C3. Access to information and knowledge C7. E-government	Indicator 6.6: Proportion of central government organizations with a web presence. Indicator 6.7: Level of development of online service delivery by national governments	
7. To adapt all primary and secondary school curricula to meet the challenges of the information society, taking into account national circumstances	<i>(no revision proposed)</i>	C4. Capacity building C7. E-learning	Indicator 7.1: Proportion of ICT-qualified teachers in schools. Indicator 7.2: Proportion of teachers trained to teach subjects using ICT. Indicator 7.3: Proportion of schools with computer-assisted instruction. Indicator 7.4: Proportion of schools with Internet-assisted instruction.	n.a
8. To ensure that all of the world's population have access to television and radio services	<i>(no revision proposed)</i>	C2. Information and communication infrastructure C3. Access to information and knowledge C9. Media	Indicator 8.1: Proportion of households with a radio. Indicator 8.2: Proportion of households with a TV. Indicator 8.3: Proportion of households with multichannel television service, by type of service.	n.a
9. To encourage the development of content and put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet	<i>no revision proposed)</i>	C3. Access to information and knowledge C8. Cultural diversity and identity, linguistic diversity and local content	Indicator 9.3: Proportion of web-pages, by language. Indicator 9.4: Number of domain name registrations for each country-code top-level domain, weighted by population. Indicator 9.5: Number and share of Wikipedia articles by language	Low
10. To ensure that more than half the world's inhabitants have access to ICTs within their reach	<i>To ensure that more than half the world's inhabitants have access to ICTs, in particular broadband Internet, within their reach and make use of them</i>	C2. Information and communication infrastructure C3. Access to information and knowledge C6. Enabling environment C7. ICT applications: benefits in all aspects of life	Indicator 10.4: Proportion of individuals using the Internet Indicator 10.5: Proportion of households with Internet access, by type of access.	Medium

Note: *Refers to percentages unless otherwise indicated. **High/medium/low level of achievement of indicator based on reported values; n.a. = data not available to determine overall status. High level of achievement indicates nearly perfection as per described in the indicators. Medium level of achievement refers to those indicators whose works have been done to some extent, but still work has to be done. Low level of achievement indicates nearly nil or only some work have been done or not reported Based on data available and featured in the chapters of this report.

***Includes local and central government institutions. Source: ITU

5. Conclusion

NTA was collecting and disseminating the Telecommunication Indicators those defined by ITU which are comparable across countries. Although this was being done at regular interval in the past, difficulty in obtaining data in time has been a major concern in our effort to make those indicators available to the stakeholders without delay. Due to this fact and some sort of leniency on part of NTA in enforcing the operators to submit that in time has resulted in the discontinuation of the process of making public the ICT indicator statistics of Nepal. However, the preliminary steps NTA has taken in the past should be restarted which should reflect the preset ICT statistics of the country, which carries much significance for the development of ICT in the country as it is the basic requirement for the planners, researchers, industrialists etc. to name few. Periodic reporting of such data helps to find out the impact of the ICT in the society and in turn, its effect on the overall development of the country as a whole.

References

1. www.nta.gov.np
2. www.cbs.gov.np
3. www.maps.google.com