

ITU Asia-Pacific Regional Workshop on ICT Indicators
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Presentation outline

1. Bhutan @ Demographic & Geography
2. Legal Mandate for data collection
3. Telecom and ICT history
4. Telecom and ICT service providers
5. Summary of ICT/Telecom indicators
6. ICT/Telecom Indicators: administrative data
7. HH ICT/Telecom indicators
8. Issues for ICT data collections
9. Action Taken
10. Future plans





Bhutan @ Demographic & Geography



Population of Bhutan, 2017

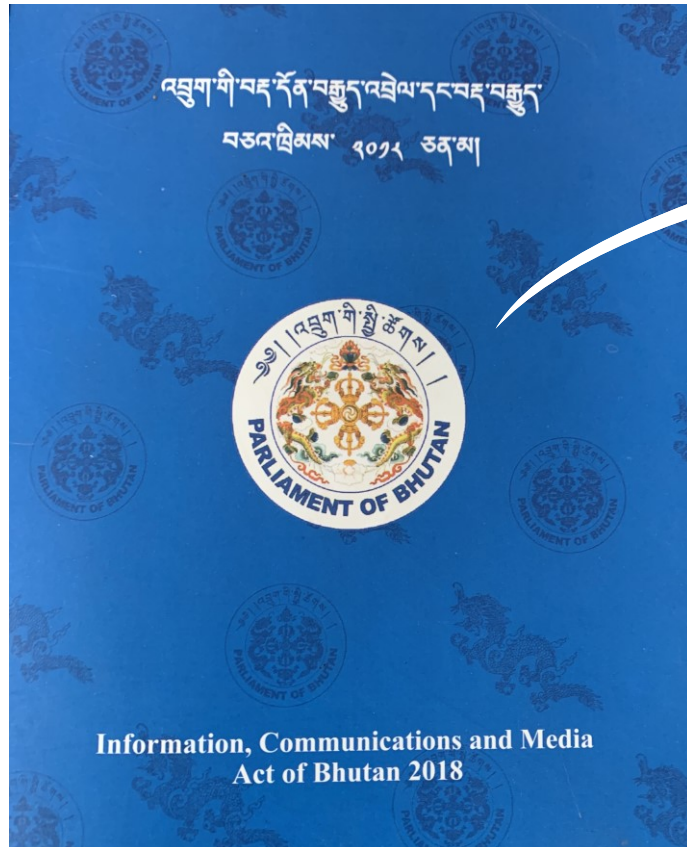


Percentage of Population by Area, Bhutan 2017





Legal mandates: *For ICT data collection*



Reports from the Authority and other relevant bodies

27. The Ministry may require the Authority and other bodies constituted under this Act including the providers of ICT and media services, to provide, within a reasonable time, information, statistical data and reports on specific matters falling within this Act, and they shall respond to such requests.



Legal Mandates: Cont....

As per the Information, Communications and Media Act of Bhutan 2018 and the National Strategy for Development of Statistics, agencies responsible for ICT data collections are:

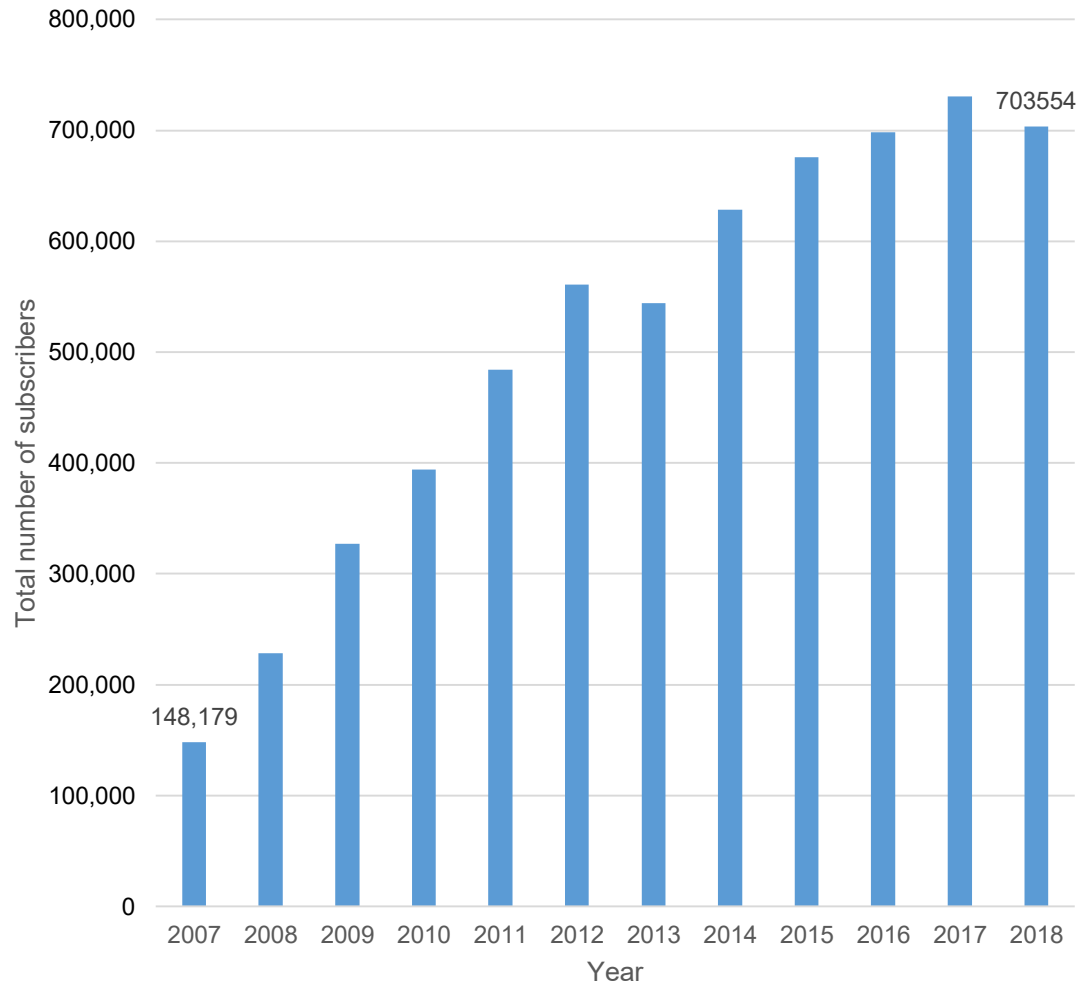
- ❖ Ministry of Information and Communications (MoIC) (*PPD & DITT*)
- ❖ Bhutan InfoComm and Media Authority (BICMA)
- ❖ National Statistics Bureau (NSB) (*mostly focused on HH surveys*): *Administrative and Survey data. NSB relies on MoIC & BICMA for administrative data.*

Telecom and ICT History

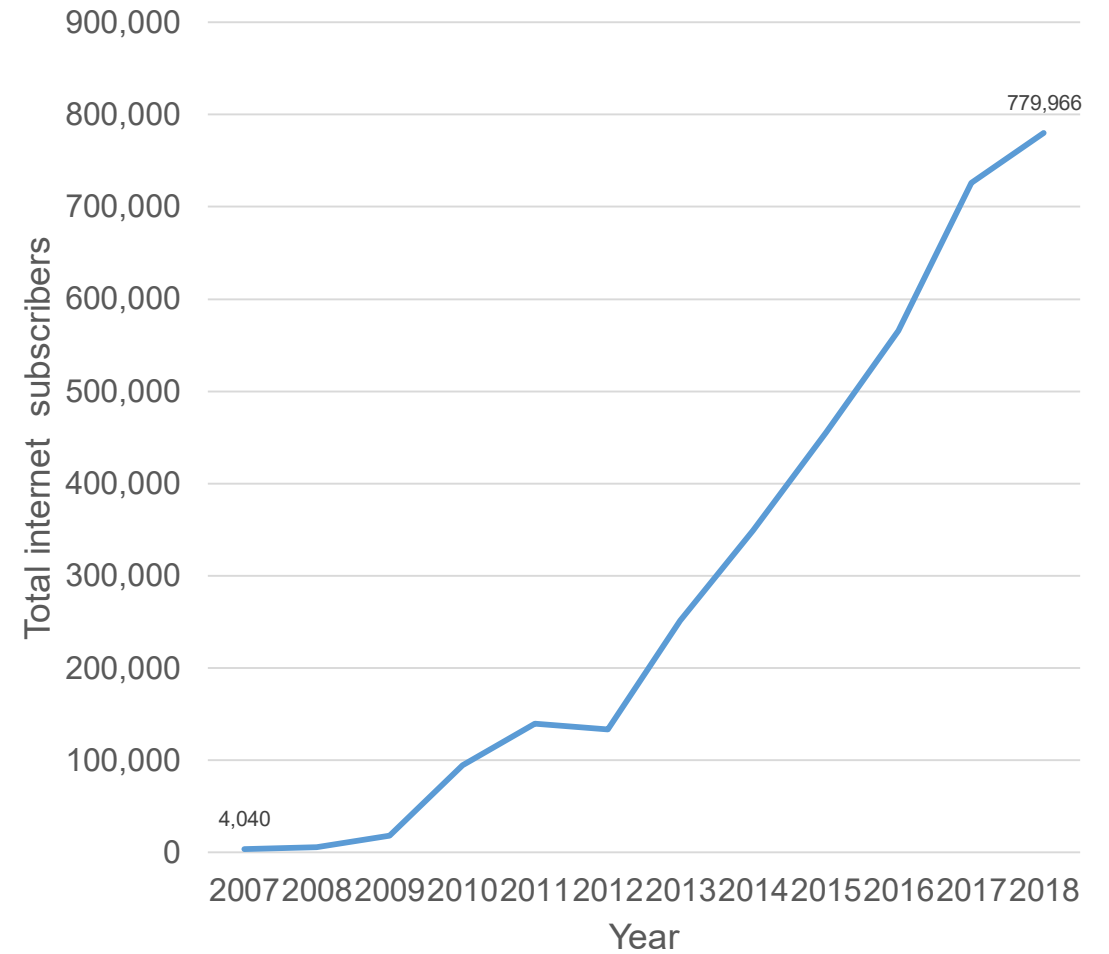


- ❖ Internet services first introduced in 1999
- ❖ Mobile services introduced in 2003 with 2G services, *fixed telephone line was available*
- ❖ Ministry of Information and Communication established in 2003
- ❖ Adoption of the Bhutan Information, Communications and Media Act 2006
- ❖ Bhutan InfoComm and Media Authority established in 2007
- ❖ 3G services launched in 2008, and 4G services in 2017
- ❖ Adoption of Bhutan ICT policy and Strategies (BIPS) in 2009, ICT Roadmap 2014 and Bhutan Telecommunication and Broadband Policy 2014

Telecom and ICT History... cont....



■ Total mobile Subscribers





Telecom and ICT service providers

❖ Telecom Operators: 2

- Bhutan Telecom Limited (B-mobile) – Both mobile & fixed telephone: State owned
- Tashi InfoComm Pvt. Limited (T-Cell) – only mobile services

❖ Internet service providers: 8

- Druknet (Bhutan Telecom)- Lease line, Fixed broadband, Mobile broadband
- Tashi InfoComm Pvt. Ltd. – Lease line and mobile broadband
- DrukCom, Supernet InfoComm, Bitcom system, Datanet wifi, Nano and Drangdhen Thonglay: all privately owned

Summary of ICT/Telecom indicators



ICT Development Index (ITU) : 3.69	121 from 176 Countries (2017)
Indicators	June 2019
a) Information & Communication Technology	
• Mobile subscribers	715,872
• Internet subscribers	694,249
• Fixed line telephone subscribers	22,289
• Number of Community Centers	200
b) Information and Media	
• Television Stations – BBS	1
• Radio Stations	11
• Number of Newspapers	5
• Number of cable television operators	90



ICT/Telecom Indicators: *administrative data*

Basic indicators and collection frequency:

- ❖ Fixed telephone line subscribers by Districts: *Quarterly and Annually*
- ❖ Mobile subscribers by Operators and Type: *Quarterly and Annually*
- ❖ Internet users by Type (lease line, Fixed Broadband, 3G/4G/ GPRS/ EDGE): *Quarterly and Annually*
- ❖ Telecommunication revenue and investment data by Operator and ISPs: *Annually*
- ❖ Community Center Users (of e-government services): *Annually*
- ❖ ICT uptake in school (no. of students taught on ICT skills): *Annually*



ICT/Telecom Indicators collection: administrative data.. cont.

- ❖ ITU Price basket indicators: Annually
- ❖ ITU ICT Long and Short Questionnaire like traffic call data, revenue data, employee, bandwidth usage data, & others: Annually
- ❖ APT Year book indicators, WSIS data: Annually
- ❖ Annual performance target indicators (*mostly focused on infrastructure, employment, revenue*): Annually
- ❖ *However, sectors like Health, Trade and Agriculture collect their own ICT related indicators due to size of use of ICT in these sectors*



Data Dissemination (administrative data only)

- ❖ Administrative ICT database maintained with MoIC and BICMA
- ❖ Data collected every quarter and annually from telecoms, ISPs, Community Centers and Departments (*DITT*)
- ❖ MoIC: On Quarterly and annual basis via website
- ❖ NSB: Yearbook
- ❖ BICMA: biannually and annually via their website

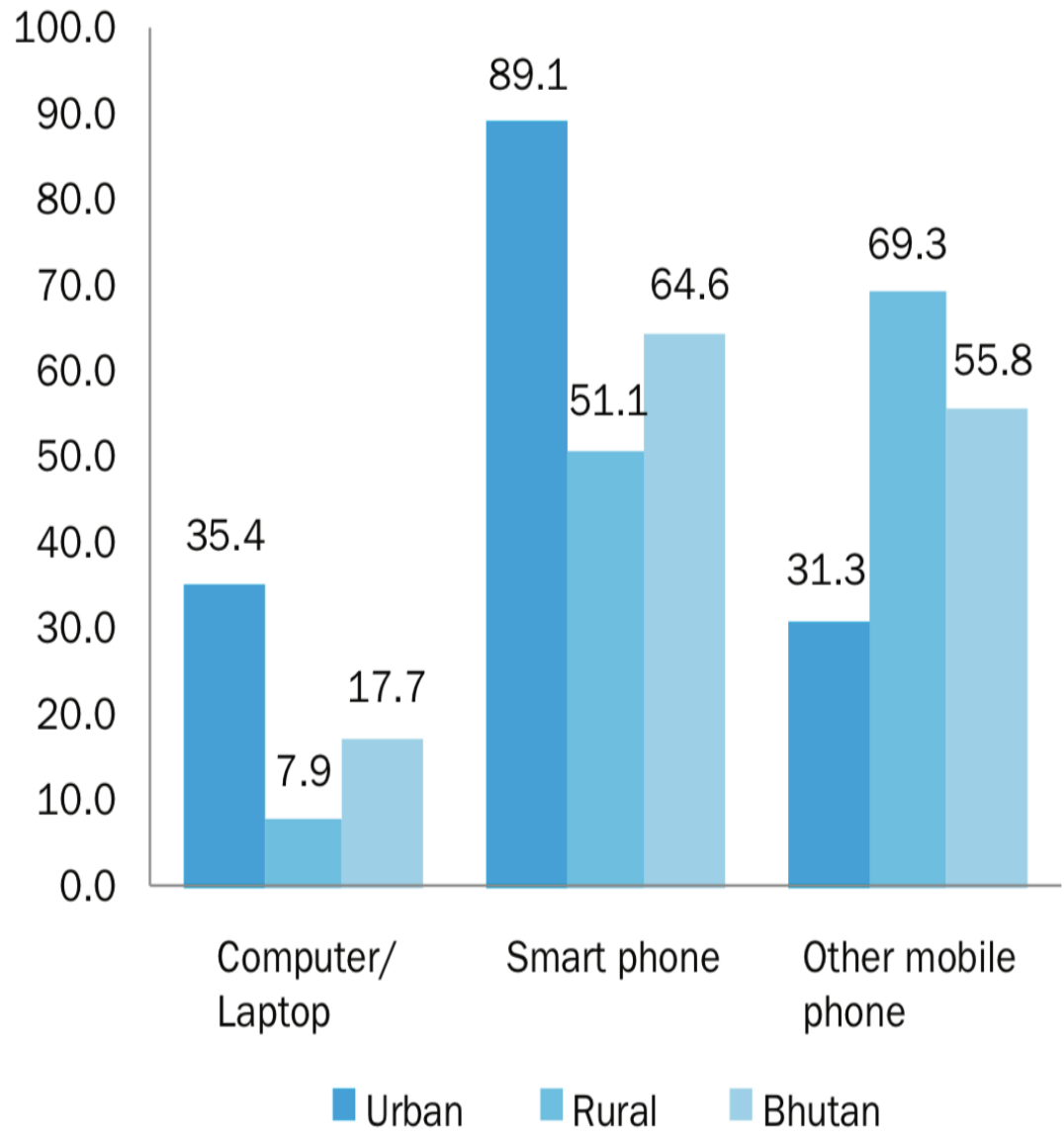
HH ICT/Telecom indicators



- ❖ National Statistics Bureau (NSB) carries all generic national level surveys
- ❖ Respective sector responsible for their survey. *For ICT, MoIC mandated*
- ❖ No detailed ICT/Telecommunication carried out by MoIC or NSB
- ❖ However, few NSB surveys and a small Media Impact Study (MoIC) included basic ICT/Telecommunication indicators
 - *Bhutan Media Impact Study (2013), Population and Housing Census (conducted every 10 years, latest 2017), Bhutan Living Standard Survey (every 5 years, latest 2017), Economic Census (2018-2019), Labor Force Survey (2017)*
- ❖ Indicators included in these surveys are:
 - Mobile phone ownership (PHCB, BLSS, BMIS)
 - Internet connectivity by type and Dzongkhag (BLSS, PHCB)
 - Computer/Laptop/Tablet ownership (PHCB, BLSS)
 - TV/radio ownership (BLSS, PHCB)
 - Employment status by sector (Economic census, Labor Force)



Distribution of Households Owning Computers and Mobile Phones by Area (Urban or Rural)



Distribution of Households by Type of Internet Connection

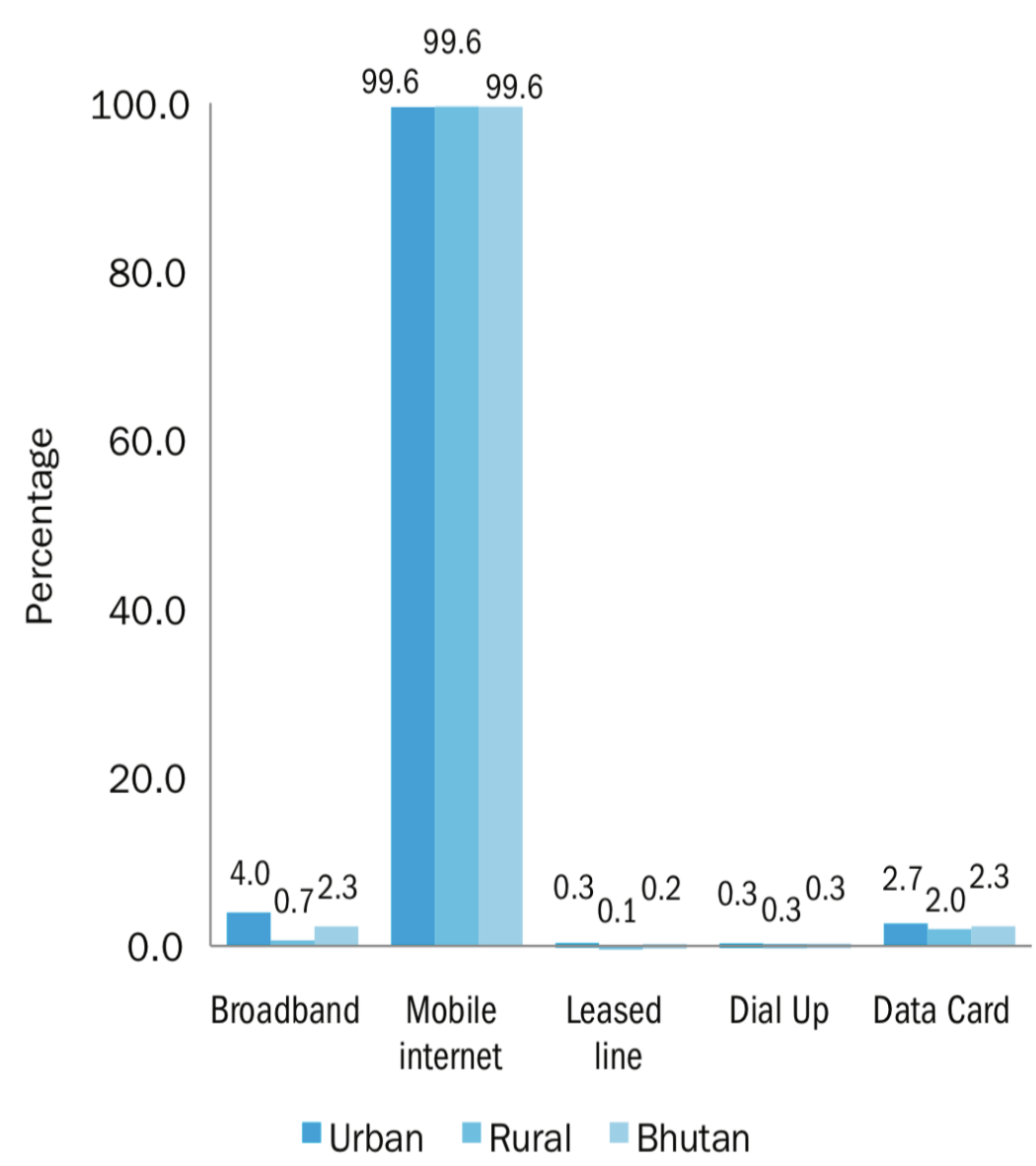




Table A7.15 Distribution of Households by Ownership of Communication/Media Facilities by Area and *Dzongkhag*, Bhutan 2017

Area/ <i>Dzongkhag</i>	Ownership of Communication/Media Facilities													% With None of the Items	% With All of the Items	Total
	Radio/Tape Player	TV/Video	Telephone (Landline)	Mobile Phone (Smart Phone)	Mobile Phone (Simple Phone)	Desktop	Laptop	Tablet	Internet-Mobile	Internet-Fixed	Newspaper	Other				
Area																
Urban	11,243	52,869	5,039	50,035	20,603	7,788	22,212	7,018	41,875	4,058	7,024	89	0.9	0.00	60,394	
Rural	27,656	63,653	1,524	50,008	62,025	3,000	10,889	2,349	29,431	1,062	2,572	174	5.0	0.00	102,607	
Dzongkhag																
Bumthang	1,014	3,100	182	2,660	1,772	201	768	187	1,781	121	123	12	2.0	0.00	3,770	
Chhukha	3,432	11,790	634	10,375	7,529	1,113	3,160	841	7,824	484	1,054	23	2.6	0.00	16,075	
Phuentshogling Thromde	831	5,777	394	5,373	2,376	725	2,017	568	4,462	351	712	6	1.5	0.00	6,817	
Other than Phuentshogling Thromde	2,601	6,013	240	5,002	5,153	388	1,143	273	3,362	133	342	17	3.5	0.00	9,258	
Dagana	1,521	3,512	77	2,592	3,726	165	620	128	1,640	62	106	14	3.3	0.00	5,671	
Gasa	322	556	17	639	492	17	142	12	187	7	16	1	3.2	0.00	909	
Haa	703	2,294	120	1,853	1,601	130	492	141	1,390	81	117	2	2.0	0.00	2,952	
Lhuentse	934	1,924	53	1,564	1,937	76	328	50	861	20	42	5	4.0	0.00	3,111	
Monggar	2,197	4,892	235	4,126	5,210	313	1,060	250	2,582	159	176	13	4.0	0.00	8,640	
Paro	1,906	8,643	516	7,537	4,363	867	2,680	848	5,571	390	851	8	1.4	0.02	10,274	
Pema Gatshel	1,485	3,640	122	2,701	3,531	184	655	91	1,547	67	46	10	6.5	0.00	6,075	
Punakha	1,602	4,732	146	3,770	3,084	324	1,116	250	2,466	112	185	18	1.9	0.00	6,079	
Samdrup Jongkhar	1,383	4,968	207	4,232	4,552	309	1,094	214	2,792	177	172	11	4.5	0.00	8,053	
Samdrup Jongkhar Thromde	285	1,850	163	1,712	634	205	606	148	1,325	133	124	2	0.8	0.00	2,055	
Other than Samdrup Jongkhar Thromde	1,098	3,118	44	2,520	3,918	104	488	66	1,467	44	48	9	5.8	0.00	5,998	
Samtse	3,650	9,042	313	7,250	8,407	545	1,493	306	4,461	162	283	19	4.4	0.00	14,537	
Sarpang	2,439	7,680	323	6,547	5,601	650	1,819	448	4,301	240	412	16	1.8	0.00	10,369	
Gelephu Thromde	365	1,957	187	1,891	808	296	744	207	1,257	144	122	3	1.4	0.00	2,320	
Other than Gelephu Thromde	2,074	5,723	136	4,656	4,793	354	1,075	241	3,044	96	290	13	1.9	0.00	8,049	
Thimphu	6,753	26,644	2,871	25,678	10,583	4,584	12,648	4,598	22,407	2,470	5,081	55	0.9	0.00	30,672	
Thimphu Thromde	5,366	22,674	2,656	21,757	8,399	4,134	11,418	4,213	19,303	2,278	4,589	41	0.8	0.00	25,408	
Other than Thimphu Thromde	1,387	3,970	215	3,921	2,184	450	1,230	385	3,104	192	492	14	1.6	0.00	5,264	
Trashigang	2,820	6,419	233	4,759	6,361	298	1,314	238	2,689	165	285	26	4.9	0.00	10,720	
Trashi Yangtse	1,138	2,561	46	1,761	2,337	113	488	79	955	34	69	5	5.3	0.00	3,982	
Trongsa	854	2,381	81	2,465	1,539	157	799	142	1,757	54	144	2	3.2	0.00	3,690	
Tsirang	1,640	3,426	89	2,492	3,331	212	623	161	1,327	59	79	6	2.2	0.00	5,063	
Wangdue Phodrang	2,225	6,417	213	5,278	4,262	428	1,315	285	3,690	186	333	14	2.6	0.00	8,556	
Zhemgang	881	1,901	85	1,764	2,410	102	487	98	1,078	70	22	3	5.4	0.00	3,803	
Bhutan	38,899	116,522	6,563	100,043	82,628	10,788	33,101	9,367	71,306	5,120	9,596	263	2.9	0.00	163,001	



Issues while collecting ICT indicators

- ❖ Confidentiality: especially on revenue, investment and traffic data
- ❖ Accounting of passive mobile users
- ❖ Accounting of SIMs used for tablets and other electronic devices
- ❖ Change in focal person(s)
- ❖ Timeliness
- ❖ Point of time data dissemination

Issues while collecting ICT indicators.. cont..

- ❖ Non-availability of data (*Mobile network subscriptions, mobile number portability, bundled services*)
- ❖ Lack of importance for data: *segregation of data by HH/individual and institutional organization*
- ❖ Confusion among Operators to report Mobile broadband as one initially registered 2G services is later improved to 3G/4G services
- ❖ Segregation and classification of data for mobile only broadband subscriptions indicators: All SIMs used for call and internet



Issues regarding HH indicators

- ❖ No stand alone HH survey carried out.
- ❖ A small survey (BMIS, 2013) carried out with Media reach as main focus.
 - Budgetary limitations
 - Geographical terrain, and sparsely located populations an issue
- ❖ New subject knowledge leading to misleading answers
- ❖ Importance attached to the ICT sector: *that is changing*
- ❖ *Frequency and inclusiveness of ICT indicators*



Action Taken

- ❖ New ICT Act in 2018, policies, strategies and Flag ship program initiated
- ❖ Ministry and Authority now legally authorized to demand comprehensive data on timely basis.
- ❖ Policy directive issued to the two Operators and ISPs to maintain all data related to ITU Long Questionnaire
- ❖ Data dissemination from Operators now streamlined
- ❖ Annual Performance Agreement signed between the Prime Minister of Bhutan and the Ministry of Information and Communications.



Future plans

- ❖ NSB to include more ICT indicators in future Bhutan Living Standard Surveys Surveys
- ❖ Initiating online child protection Survey in schools (will be carried out in November 2019)
- ❖ Ministry to initiate sector specific survey in the current 12th FYP

THANK YOU