



#### "ITU Asia-Pacific Regional Workshop on ICT Indicators, Ha Noi, Viet Nam (02 to 04 October, 2019)



### "Brief Presentation on ICT Statistics Experiences of Mongolia"

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### Presentation Outline

- I. Key ICT Statistics
- II. Organization Responsible ICT Statistics
- III. Provincial IDI Ranking of Mongolia /Test calculation/
- IV. Challenges for Mongolia







### I. Key ICT Statistics

Particulars	2016	2017	2018
Cellular Mobile Subscriptions (active)	3 409 389	3 886 167	4 222 041
Fixed Line Subscriptions (active)	142 374	144 765	159 356
Fixed Internet Subscription	226 147	285 093	306 150
3G Subscribers	2 430 183	2 625 685	2 515 872
4G/LTE Subscribers	216 401	677 131	1 473 360
IPTV Subscribers	189 281	241 797	295 189
Employees in the ICT	11 322	10 519	12 082

Total population of 2018: 3.2 million



### II. Organization Responsible – ICT Statistics



Communication Regulatory
Commission

Enterprise

Half year and end of the year report /online/

At the end of the year sharing information

National Statistics Office

Household

Household Socio-Economic Survey /Every year/

Democratic governance survey /Every year/

Social Indicator Sample Survey /Every 5 years/

Population and Housing Census /10 years/

Enterprise

Quarterly report of ICT /online/

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### II. Organization Responsible – ICT Statistics



Communication Regulatory
Commission

ISIC 4.0: over 800 enterprise

According to law on Communication, law on Radio wave, law on Postal, Electronic Signature Law etc. From the Enterprises

Financial indicators

**Human Resource Indicators** 

Number of users

Voice/data traffic indicators

Service tariffs

Technical specification of transmitter

Technical specifications of antenna

Service quality indicators

National Statistics Office

ISIC 3.1: over 600 enterprise (including branches)

According to Statistical law

Number of registered entities in 2018: 2.1 thousand



### II. Organization Responsible – ICT Statistics



NSO

#### HOUSEHOLD

	Household Socio-Economic Survey	Democratic governance survey	Social Indicator Sample Survey
Sampling frame	Population and household database	Household Socio- Economic Survey	Population and household database
Selected for sample /HH/	16 488	3 744	14 500
Estimation level	State	State	State
Frequency	Every year	Every year	One time in 5 years



### II. Organization Responsible – ICT Statistics



NSO

#### HOUSEHOLD

Household Socio-Economic Survey	Democratic governance survey	Social Indicator Sample Survey	Population and Housing Census
Does your household have a computer?	Do you use a computer, laptop or tablet?	Do you use a computer, laptop or tablet?	-
-	Did you use a computer, laptop or tablet during the last 3 months?	Did you use a computer, laptop or tablet during the last 3 months?	-
-	Did you do the following tasks on a computer, laptop, tablet last 3 months?	Did you do the following tasks on a computer, laptop, tablet last 3 months?	-
Does any household member use internet?	Do you usually use the internet?	Have you ever used the internet?	-
How many members of the household use internet?	-	-	-
Where did you (your household member) use internet during the last 3 months?	Did you use internet during the last 3 months?	Did you use internet during the last 3 months?	Do you use the internet?
Does your household have a telephone?	Do you usually use cell phones?	Do you have a cell phone?	Do you have a cell phone?
-	Did you usecell phones during the last 3 months?	Did you usecell phones during the last 3 months?	-









#### Methodology

In order to reveal the full range of ICT development at a deep level in the country, NSO and CRC estimated the IDI values of 21 provinces for 2016 and 2017 in accordance with ITU's computation methodology.

Weight	Indicators	Reference value	(%)
	ICT access		
	Fixed-telephone subscriptions per 100 inhabitants	60	20
	Mobile-cellular telephone subscriptions per 100 inhabitants	120	20
40	Domestic Internet bandwith (bit/s) per internet user	122758	20
	Percentage of households with a computer	100	20
	Percentage of households with Internet access	100	20
	ICT use		
	Percentage of individuals using the Internet	100	33
40	Fixed-broadband subscriptions per 100 inhabitants	60	33
	Active mobile-broadband subscriptions per 100 inhabitants	100	33
	ICT skills		
	The literacy rate of 15 years and over	100	33
20	Secondary gross enrolment ratio	100	33
	Tertiary gross enrolment ratio	100	33



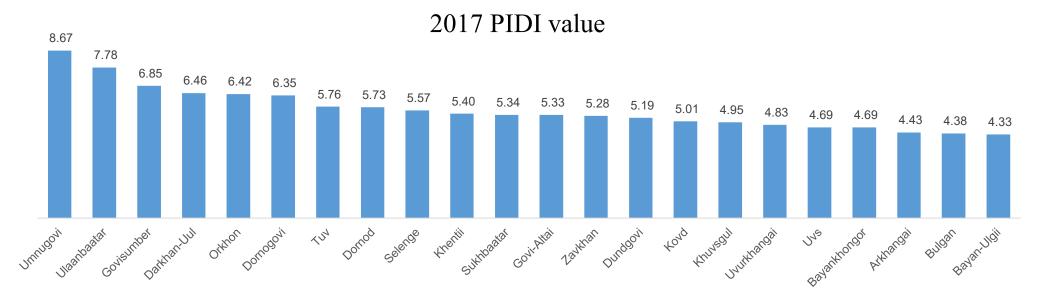






#### **Ranking-Overview**

Umnugovi, Ulaanbaatar, Govisumber, Darkhan-Uul and Orkhon have the PIDI values for 2017 over 6.0, significantly higher than other areas. The PIDI values range from 5 and 5.7 in rest 9 provinces, reflecting the average level of ICT development in Mongolia.







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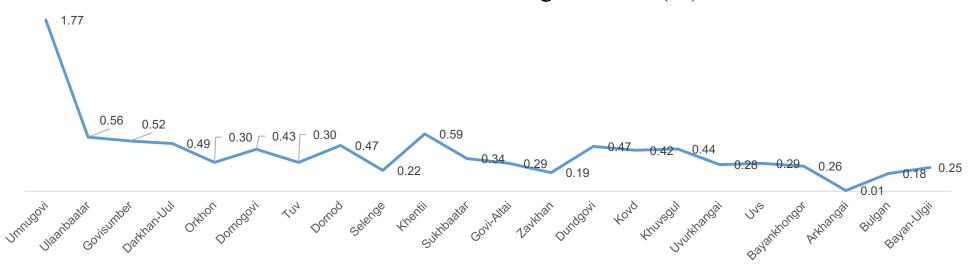
# III. Provincial IDI Ranking and Analysis of Mongolia /Test calculation/



#### **Ranking-Changes**

IDIndex growth rate higher than other far from central area. This growth distributed especially mining and populated region. But most region's growth rate have similar level (IDI).

2016-2017 value change of PIDI (%)

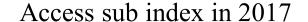


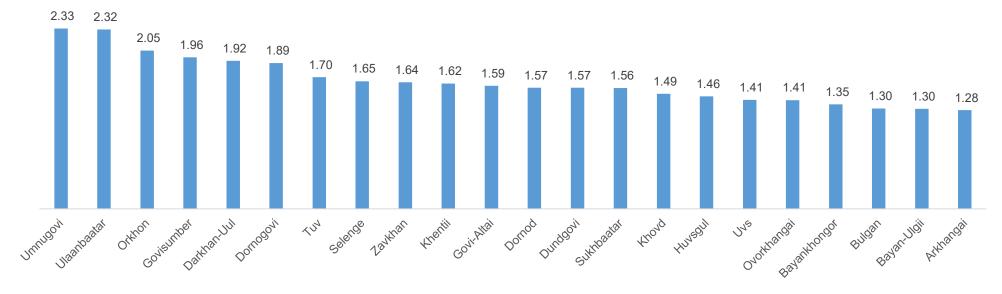




#### **Access sub-index**

The sub-index captures ICT infrastructure readiness, i.e. the basic conditions to access to and benefit from ICTs. In 2017, the top five regions for ICT access were Umnugovi, Ulaanbaatar, Orkhon, Govisumber, Darkhan-uul.









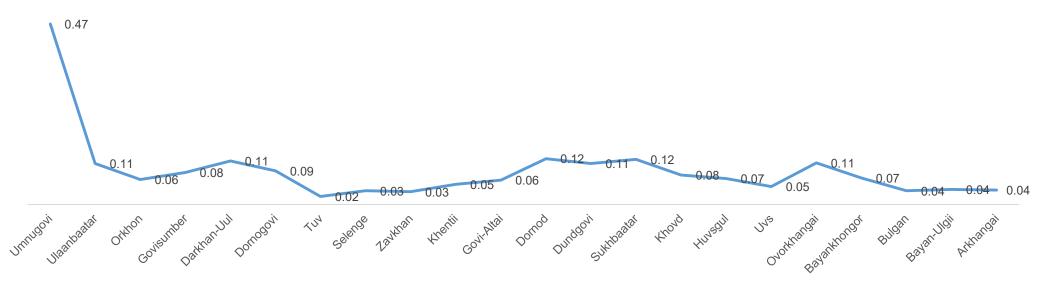




#### **Access sub-index**

From the picture, the most provinces have same level in 2017. Eventhough, growth rate is low, it is better than declines

The change of access sub-index in 2017



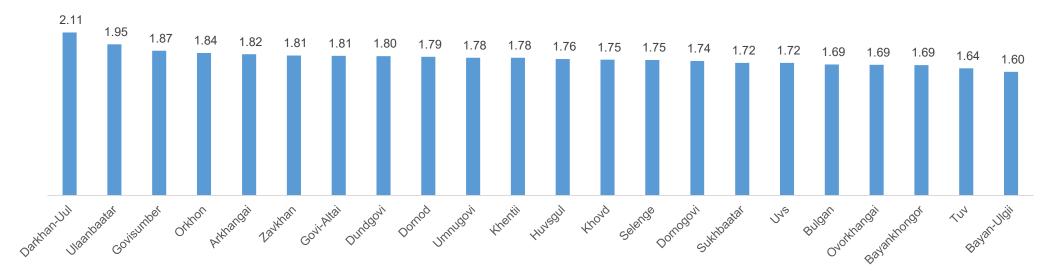




#### **Use sub-index**

The sub-index captures the degree of ICT usage, which paves an important foundation to support digital transformation of traditional industries. In 2017, the top five regions for ICT use were Umnugovi, Ulaanbaatar, Govisumber, Dornogovi, Orkhon.

Access use index in 2017







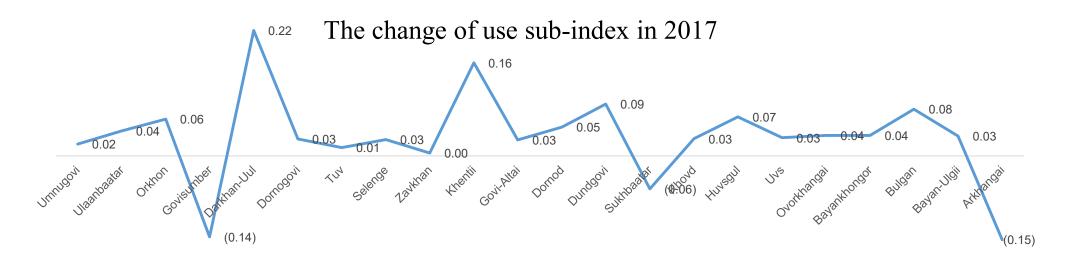
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# III. Provincial IDI Ranking and Analysis of Mongolia /Test calculation/



#### Use sub-index

In 2017, the top five regions for ICT use were Umnugovi, Ulaanbaatar, Govisumber, Dornogovi and Orkhon. In 2016-2017, there was a more significant improvement in the use sub-index compared with access sub-index. The increase rate of sub-index value exceeded 1.3% in 1 provinces, ranged from 0.30% to 0.60% in 7 provinces.



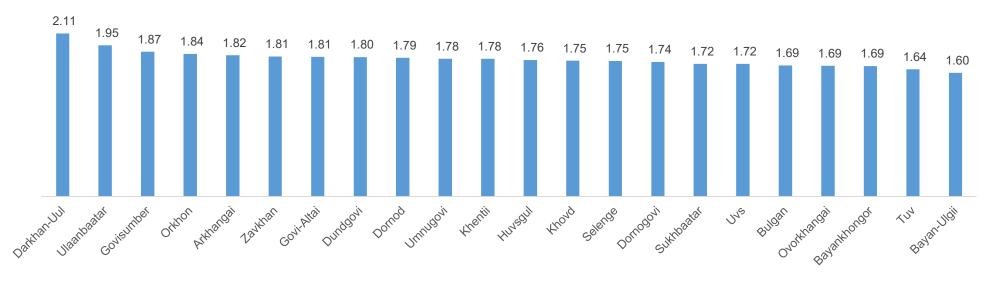




#### Skills sub-index

The sub-index measures the level of human capital and capability of inhabitants to use ICTs in regions. In 2017, the top five regions for ICT skills were Darkhan-Uul, Ulaanbaatar, Govisumber, Orkhon, Arkhangai.

#### Access skills-index in 2017





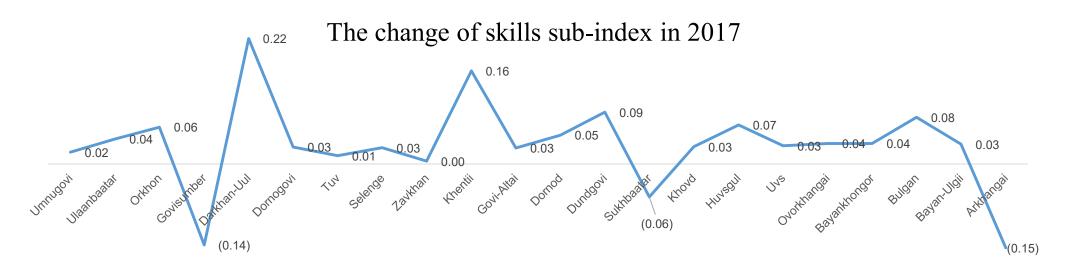
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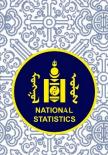
## III. Provincial IDI Ranking and Analysis of Mongolia /Test calculation/



#### Skills sub-index

Compared with the other two sub-indices, this sub-index changed biggest in 2016-2017 as it is difficult and time-taking to improve ICT skills due to the constraints of demographic structure, environmental education, and social development. Compared to the year 2016, it decreased in Arkhangai, Darkhan and Sukhbaatar.









# III. The rank of Provincial IDI and provincial competitiveness index

	IDI	Provincial competitiveness index
Umnugovi	1	2
Govisumber	2	3
Darkhan-Uul	3	4
Orkhon	4	1
Dornogovi	5	5







### IV. Challenges for Mongolia

- Telecom data are most developing in the Mongolia last years. But telecom data uses and household detailed data are insufficient

- Enhance the IDI of province.



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### Thank you for attention

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