India's Telecom Usage

2015-18

Data Guide - May 2019

About Telecom Data Guide

With most of its urban population using more than one phone connection per person and rural teledensity shooting up, India's wireless telecom story has been remarkable. Before the wireline phones could reach the hinterlands of India, wireless took over in a big way.

Today, an Indian internet user is consuming nearly 9 GB data every month. The cost of this data has crashed. More and more people are now reachable via a mobile phone and internet. This has a significant impact on how business can be conducted and social impact programmes can be designed and delivered to reach maximum number of people in a cost-effective and timely manner.

This telecom data guide covers :
• Subscriber numbers : Wireline, wireless, rural and urban
• Teledensity : Rural and urban, service area-wise
• Internet users : Wireline, wireless, rural and urban
• Internet density : Rural and urban
• Data usage trends
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Data Sources :
• Telecom Regulatory Authority of India (TRAI)
• Department of telecommunication
• UIDAI
• *IDI analysis*

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About Telecom Data Guide

This is a detailed telecom usage study designed to provide actionable insights on :
- regions of high and low teledensity
- regions of high and low internet density
- trends in data usage
- data cost trends
- gender split in connection ownership

This data guide is an essential tool if you are a :
- CSR practitioner working on creating effective programmes
- non-profit organisation / social enterprise looking to understand reach and usage of phones and internet
- policy maker/ researcher studying telecom usage trends

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This Data Guide is produced by India Data Insights (www.IndiaDataInsights.com).

India Data Insights in an online portal delivering actionable data-driven insights to social sector professionals at a click of a button. We power sharper and quicker decision making, so that you can spend more time and resources on delivering better programmes and impact.

We are a part of Sattva Consulting (www.Sattva.co.in) and our work is powered by Sattva's decade-long experience in designing and delivering high impact programmes in emerging economies across the world.

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State of India's Telecom – Dec 2018

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1335 M
Population *

1198 M
Telephone Subscribers

98% Wireless

2% Wireline

44% Rural

56% Urban

91.45

Teledensity
Per 100 Population

604 M
Internet Subscribers

96% Wireless

4% Wireline

35% Rural
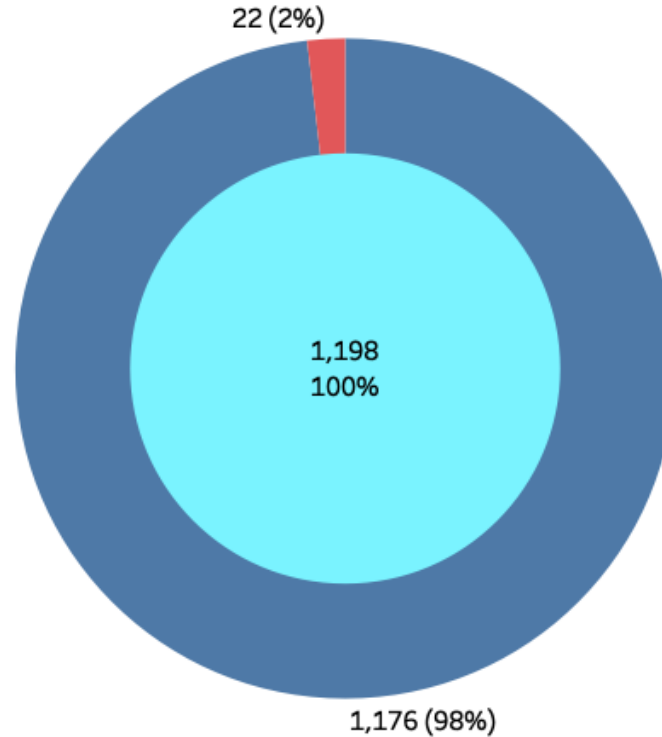
65% Urban

46.13

Internet density
Per 100 Population

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Notes: M – Million; Population * - Projected Population (Source: UIDAI – Unique Identification Authority of India); Teledensity – Subscribers per 100 population

Table of Content

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All India Total Telephone Subscribers (in Million) - Dec 2018

1198 Million

India's telephone subscriber base

98%

on **wireless**

2%

on **wireline**

Subscriber Type
- Wireless
- Wireline

22 (2%)

1,198
100%

1,176 (98%)
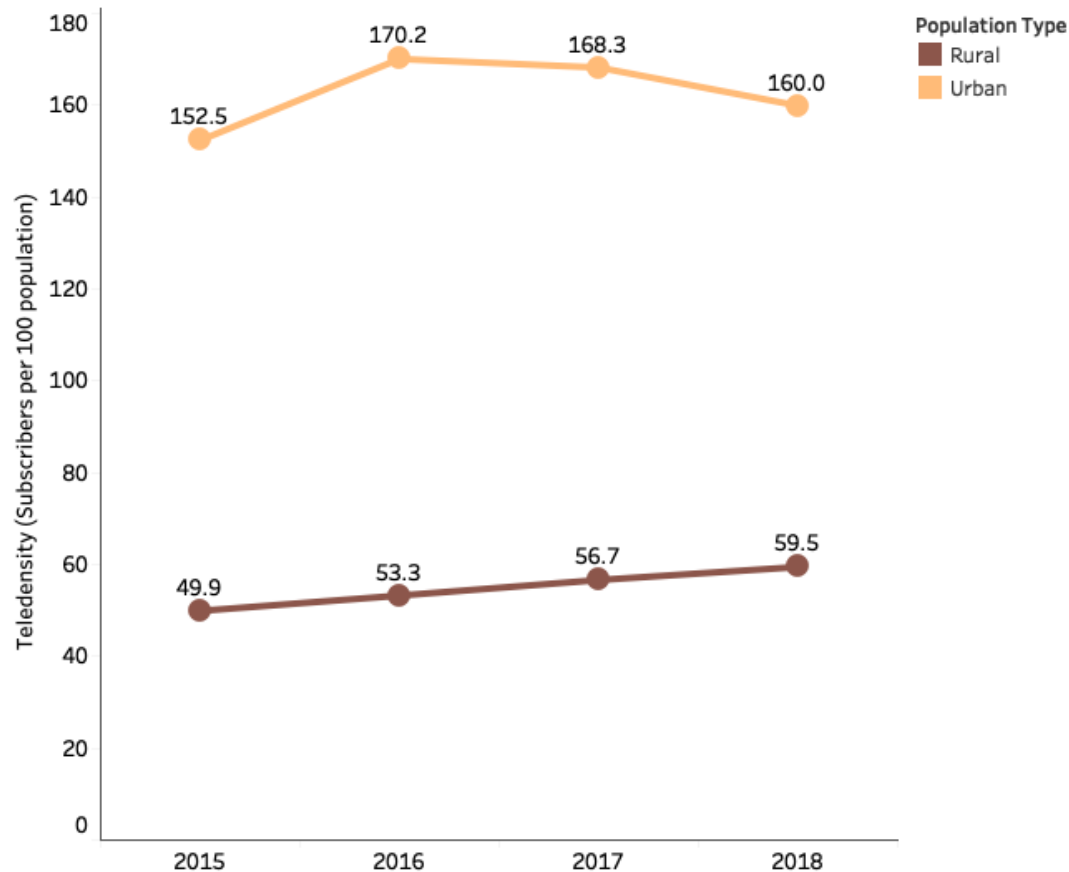
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Upward trend

In rural teledensity

Slight dip

In urban teledensity
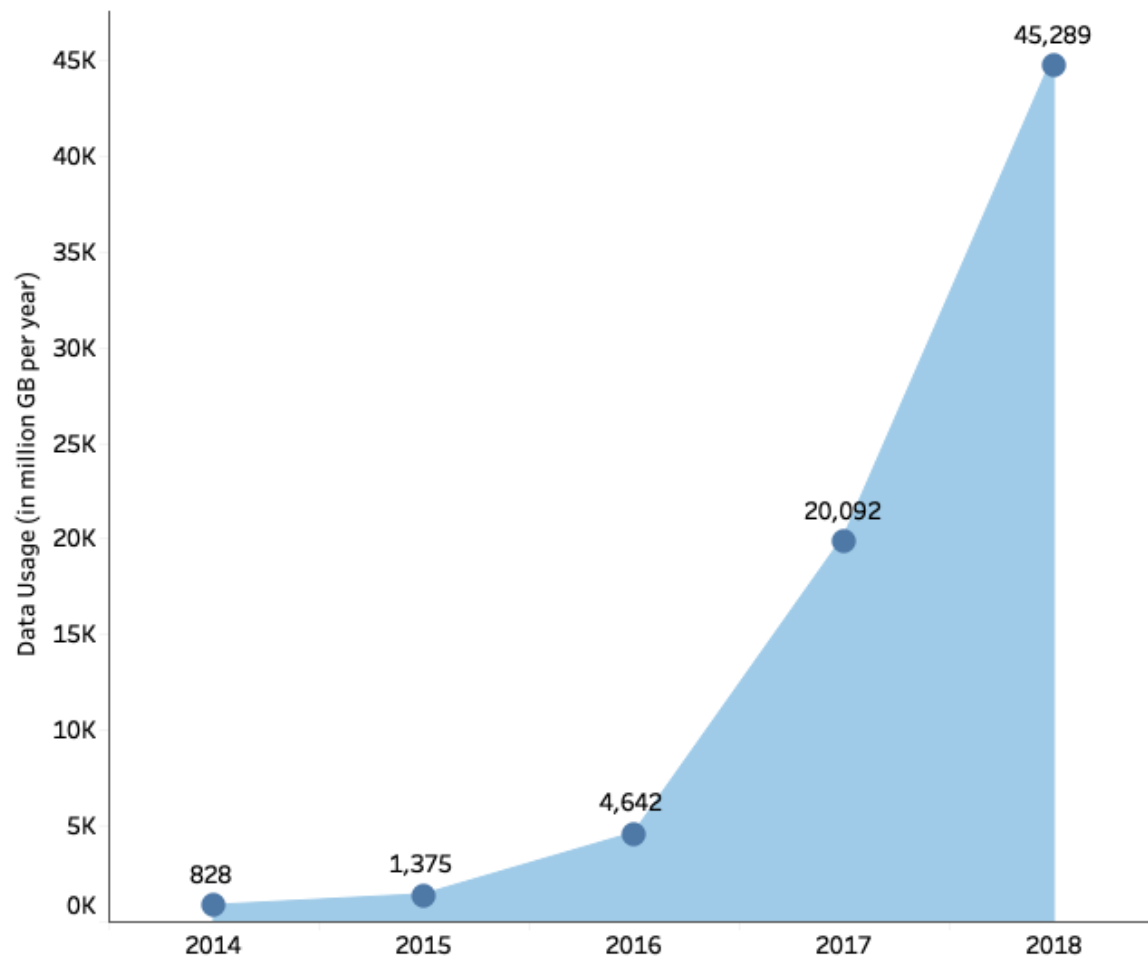

All India Total Teledensity - (Rural-Urban) - 2015-18

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Service Area-wise Total Teledensity

Service Area	2015	2016	2017	2018
Andhra Pradesh	86.5	93.7	95.8	98.3
Assam	55.1	64.3	68.7	65.4
Bihar	52.5	59.5	60.2	62.2
Delhi	240.9	248.2	262.1	235.7
Gujarat	97.6	108.6	110.7	109.5
Haryana	84.4	87.4	91.4	97.9
Himachal Pradesh	124.3	140.8	148.7	146.5
Jammu & Kashmir	78.8	91.1	104.7	91.0
Karnataka	102.3	110.4	109.6	110.9
Kerala	100.5	111.4	119.1	125.5
Madhya Pradesh	63.0	64.4	69.7	72.3
Maharashtra (incl. Mumbai)	96.8	105.7	109.4	108.6
North East	77.5	88.2	90.9	82.0
Orissa	65.7	77.4	79.6	76.9
Punjab	104.2	120.0	123.6	126.0
Rajasthan	82.2	89.0	88.9	88.5
Tamil Nadu (incl. Chennai)	117.3	124.8	124.6	117.8
Uttar Pradesh (East + West)	63.5	71.5	69.7	70.1
West Bengal (incl. Kolkata)	78.2	88.9	91.7	89.6

Teledensity

52.5   262.1

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5370%

Increase in data usage in five years

Wireless Data Usage (in Million GB per Year)

Data Usage (in million GB per year)

Year	Data Usage
2014	828
2015	1,375
2016	4,642
2017	20,092
2018	45,289

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8.74 GB

Monthly data usage
average per active user

Average Wireless Data Usage (in GB) Per Active User Per Month

Year	Average Data Usage (in GB)
2014	0.26
2015	0.40
2016	1.18
2017	4.13
2018	8.74

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96%

Decrease in the cost of wireless data in five years
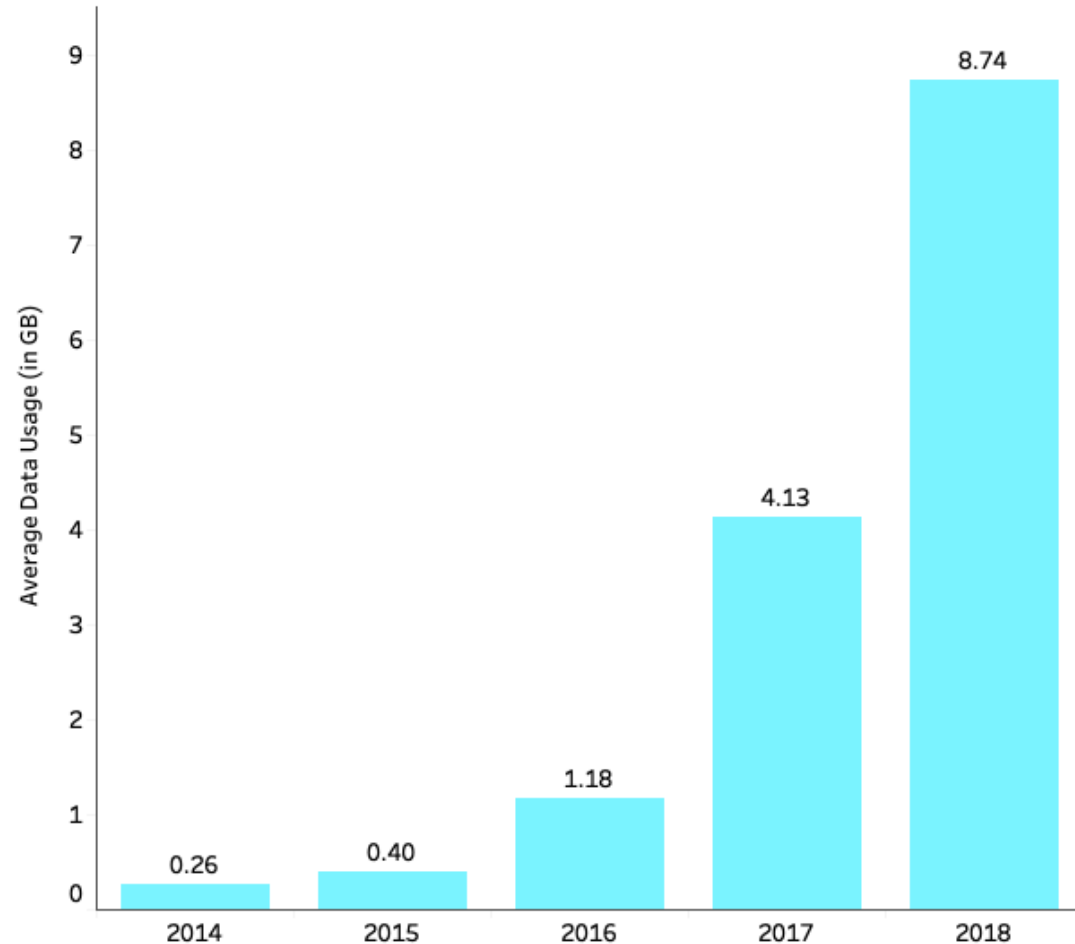
Average Tariff Per GB Wireless Data (INR)

Chart showing Average Tariff (in INR) by year:
- 2014: 268.97
- 2015: 226.30
- 2016: 75.57
- 2017: 19.35
- 2018: 10.52

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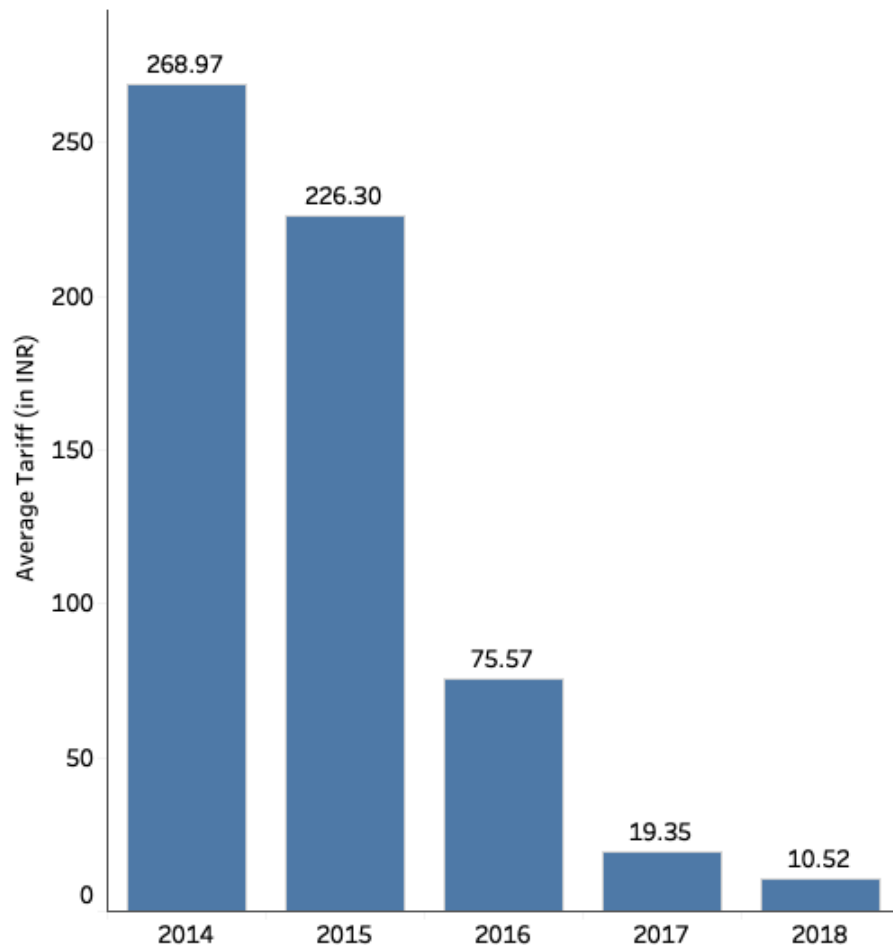
Per-capita income and access to telecommunication

Monthly Per-Capita Income (2016-17)

Teledensity (2018)

Internet Density (2018)
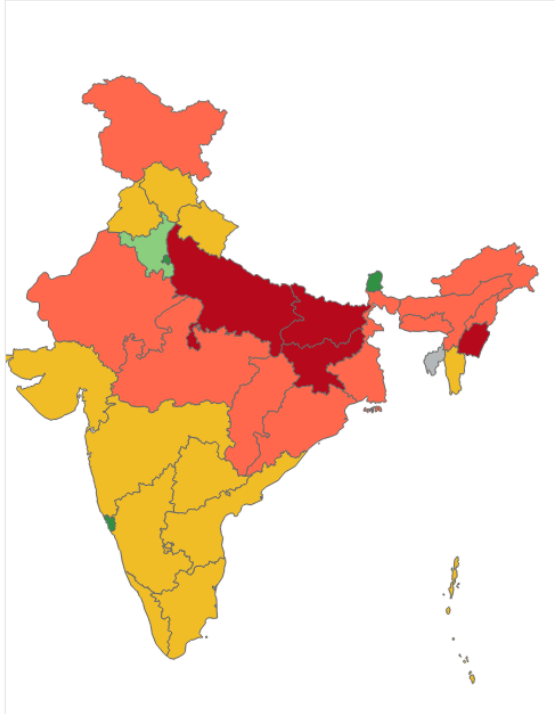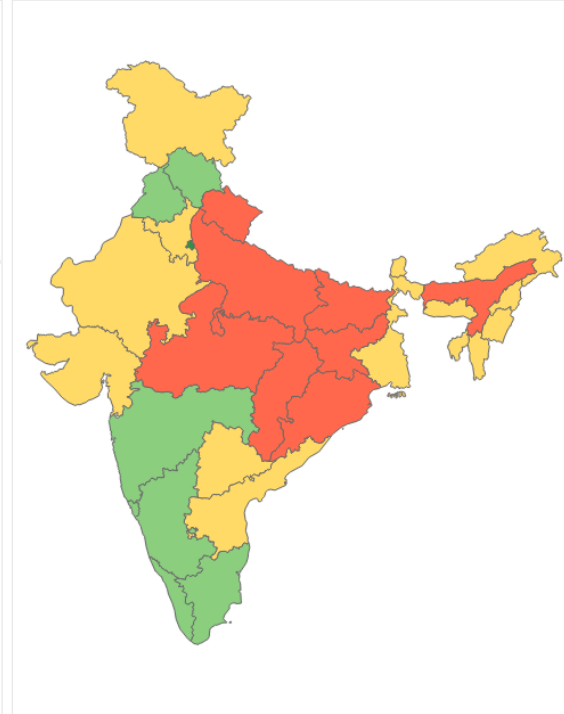
Monthly Per-Capita (INR)

- 🟩 Very High (>= 20k)
- 🟩 High (15k-20k)
- 🟨 Moderate (10k-15k)
- 🟥 Low (5k-10k)
- 🟥 Very Low (0-5k)
- ⬜ Data Unavailable

Teledensity (Telephone subscribers per 100 population)

- 🟥 50-70
- 🟨 70-90
- 🟩 90-100
- 🟩 100-125
- 🟩 > 125

Internet Density (Internet subscribers per 100 population)

- 🟥 20-40
- 🟨 40-60
- 🟩 60-80
- 🟩 > 100

Sources: Per Capita Income - RBI; Teledensity and Internet Density - TRAI (Telecom Regulatory Authority of India)

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Access to telecommunications – mobile phone and internet - play an important role in people's lives today. Access to important news and local notifications, financial services, healthcare and government schemes improves with better access to telecom services.

Today, there is some connect between telecom penetration in a region and its income level. The states with higher income have better telecom penetration among its population.

Detailed views of how telecom usage has evolved in each state are available as an interactive dashboard here :
https://www.indiadatainsights.com/IDI-Interact/indias-telecom-usage/

Following are a few sample views from the data interactive.

Comparative views

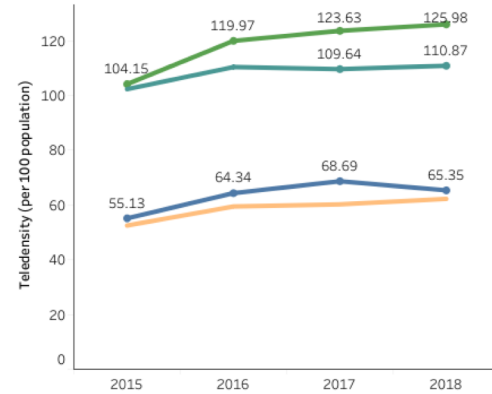Compare **Total Subscribers (Telephone and Internet)** Across Service Areas

IDI Interact

Select Service Areas to Compare

- [ ] Andhra Pradesh
- [✓] Assam
- [✓] Bihar
- [ ] Delhi
- [ ] Gujarat
- [ ] Haryana
- [ ] Himachal Pradesh
- [ ] Jammu & Kashmir
- [✓] Karnataka
- [ ] Kerala
- [ ] Madhya Pradesh
- [ ] Maharashtra (incl. Mumbai)
- [ ] North East
- [ ] Orissa
- [✓] Punjab
- [ ] Rajasthan
- [ ] Tamil Nadu (incl. Chennai)
- [ ] Uttar Pradesh (East + West)
- [ ] West Bengal (incl. Kolkata)

Service Area
- Assam
- Bihar
- Karnataka
- Punjab

Telephone Subscribers

Number of Subscribers (Million)

	2015	2016	2017	2018
Bihar	72.09	82.57	84.56	88.32
Karnataka	63.72	69.35	69.45	70.79
Punjab	32.12	37.40	38.96	40.11
Assam	17.85	21.07	22.74	21.86

Teledensity

Teledensity (per 100 population)

	2015	2016	2017	2018
Punjab	104.15	119.97	123.63	125.98
Karnataka		109.64		110.87
Assam	55.13	64.34	68.69	65.35
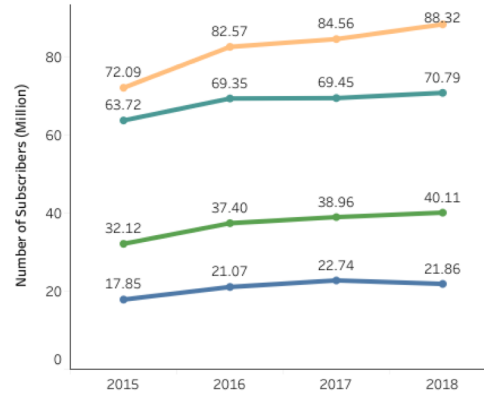
Internet Subscribers

Internet Subscribers (million)

	2016	2017	2018
Karnataka	25.48	29.96	38.44
Bihar		23.63	
Punjab	15.36	17.28	22.44
Assam	7.45	8.47	10.77

Internet Density

Internet Subscribers (per 100 population)

	2016	2017	2018
Punjab	49.26	54.84	70.47
Karnataka	40.55	47.30	60.20
Assam	22.75	25.58	32.18
Bihar	16.41	16.83	25.28

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Understand rural-urban gap in teledensity

Compare **Rural-Urban Telephone Subscribers** Across Service Areas

IDI Interact

Select Service Areas to Compare
- Andhra Pradesh
- ✔ Assam
- ✔ Bihar
- Delhi
- Gujarat
- Haryana
- Himachal Pradesh
- Jammu & Kashmir
- ✔ Karnataka
- Kerala
- Madhya Pradesh
- Maharashtra (incl. Mumbai)
- North East
- Orissa
- ✔ Punjab
- Rajasthan
- Tamil Nadu (incl. Chennai)
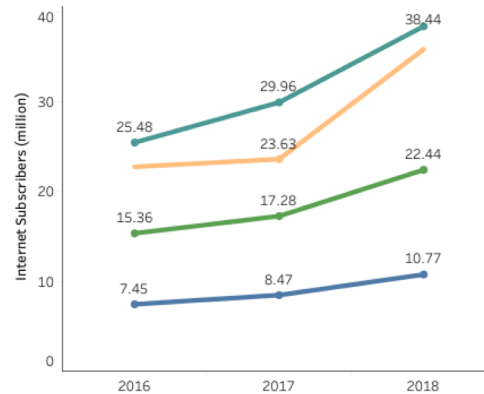- Uttar Pradesh (East + West)
- West Bengal (incl. Kolkata)

Service Area
- Assam
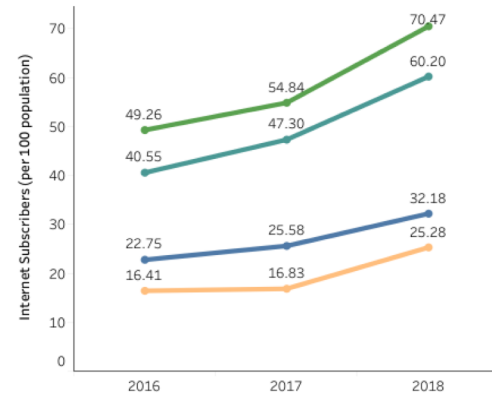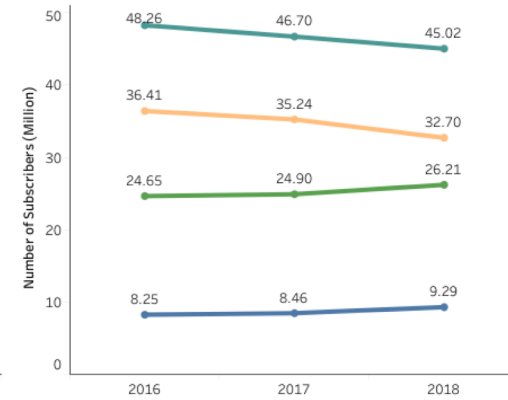- Bihar
- Karnataka
- Punjab

Rural Subscribers

Number of Subscribers (Million)

- Bihar: 46.16 (2016), 49.32 (2017), 55.62 (2018)
- Karnataka: 21.09 (2016), 22.75 (2017), 25.77 (2018)
- Assam/Punjab: 12.82 (2016), 14.06 (2017), 13.90 (2018)

Urban Subscribers

Number of Subscribers (Million)

- Karnataka: 48.26 (2016), 46.70 (2017), 45.02 (2018)
- Bihar: 36.41 (2016), 35.24 (2017), 32.70 (2018)
- Punjab: 24.65 (2016), 24.90 (2017), 26.21 (2018)
- Assam: 8.25 (2016), 8.46 (2017), 9.29 (2018)

Rural Teledensity

Teledensity (subscribers per 100 population)

- Punjab: 70.50 (2015), 73.42 (2016), 80.90 (2017), 79.99 (2018)
- Karnataka: 53.27 (2015), 55.14 (2016), 59.31 (2017), 67.01 (2018)
- Assam: 40.96 (2015), 46.76 (2016), 51.68 (2017), 45.14 (2018)
- Bihar: 38.58 (2016), 40.78 (2017)

Urban Teledensity

Teledensity (subscribers per 100 population)

- Karnataka: 179.75 (2015), 196.39 (2016), 186.89 (2017), 181.26 (2018)
- Bihar: 161.67 (2015)
- Punjab: 154.78 (2016), 154.74 (2017)
- Assam: 129.29 (2015)

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