

The logo for the Tower and Infrastructure Providers Association (taipa) features the word "taipa" in a lowercase, sans-serif font. The letters "t", "a", "i", and "p" are green, while the letter "a" is blue. The logo is centered within a white rectangular box with a thin green border.

*Tower and Infrastructure  
Providers Association*

# **Right of Way (RoW) for Digital Communications Infrastructure**

**BRI Workshop with East & Northeast Region States**

**Hotel Lily, Guwahati**

**2<sup>nd</sup> March 2020**

# About TAIPA

**TAIPA** is the apex industry body representing telecom infrastructure providers (IP-I) playing an active role in taking up key industry issues/ concerns with the relevant ministries, policy-makers, regulators, for promotion and growth of robust telecom infrastructure thereby enabling *Ease of Doing Business* for telecom infrastructure sector in India.

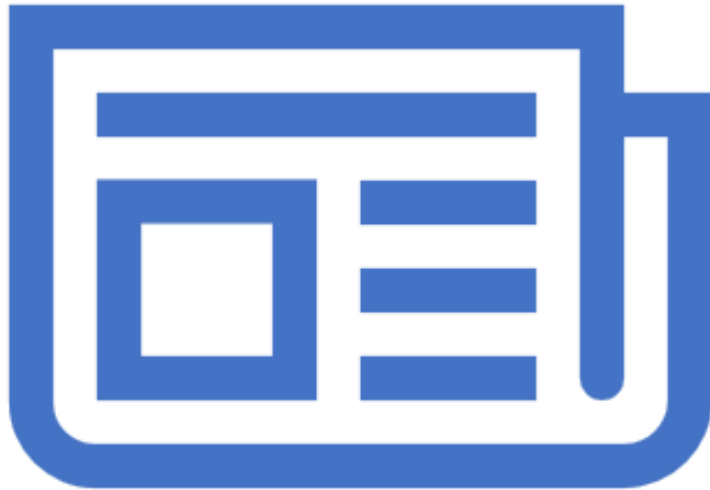
- Formed in **September 2010**, TAIPA is registered under the Societies Registration Act XXI, 1860 as industry representative body of tower infrastructure providers
- TAIPA is formed to accelerate the success of Indian Telecom revolution and represents the interest of more than **5,90,000 towers** pan-India
- As an industry we have **invested over Rs 2,50,000 crores**, facilitating ~5,90,000 towers supporting more than **1.2 Bn mobile subscribers** across India
- Promotes '**Sharing of Towers**'



# Indian Telecom Infrastructure Sharing Model

- ✓ Telecom Towers are recognized as critical, nation-building infrastructure & lifeline installation
- ✓ Tower industry facilitate & support the unique and innovative concept of “Tower Sharing” through Project “**MOST**” (Mobile Operators Shared Towers) initiated by Union Ministry of Urban Affairs and Ministry of Communications, Government of India
- ✓ Key benefits of Tower Sharing :
  - **Economics:** More efficient Use of Capital for creating national assets
  - **Aesthetics:** Reduce Tower Proliferation and improved Aesthetics
  - **Service Access:** Faster Rollout
  - **Safety:** players have incentive to follow prescribed norms
  - **Protects Environment & Energy savings**
  - **Quality of Service:** Better coverage quality
  - **Standardization:** by using IIT/TEC designs for Towers

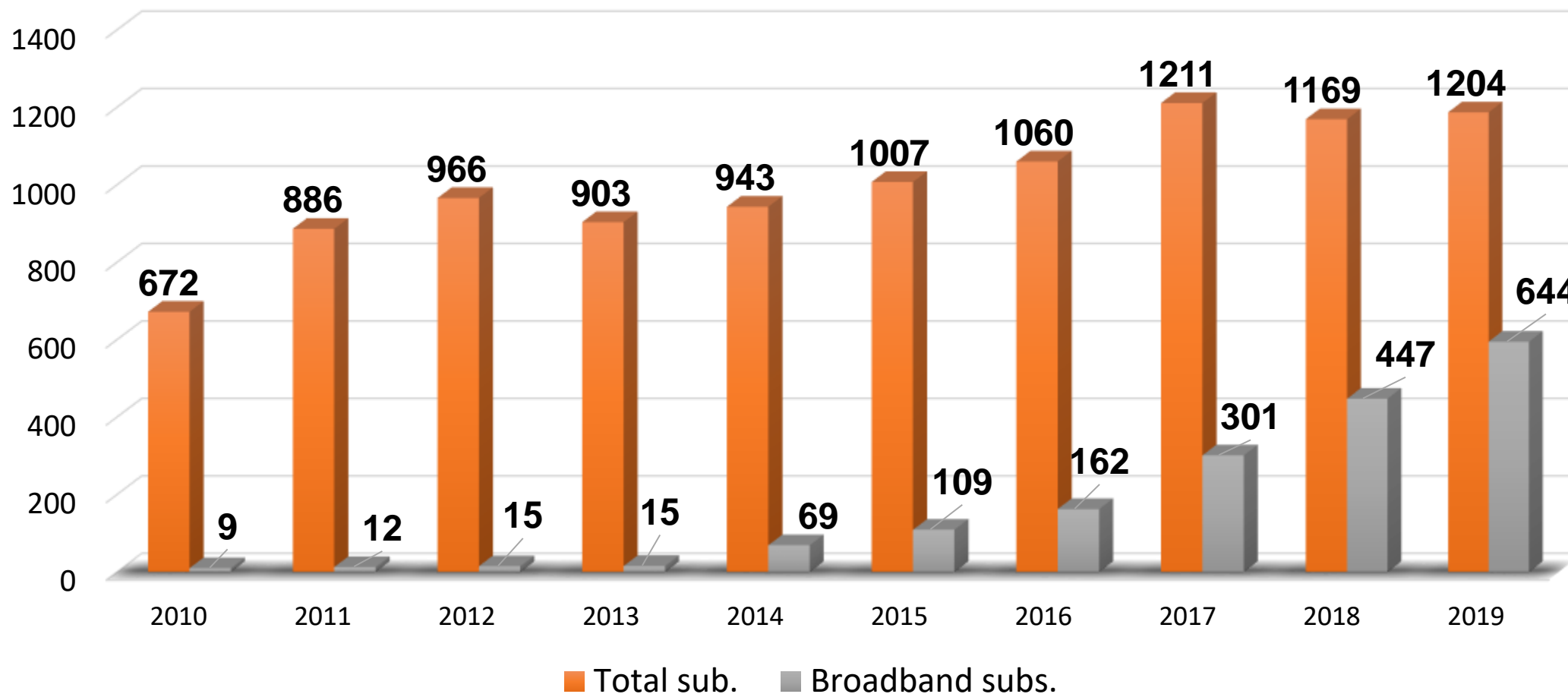
***Allows Industry to optimize cost and facilitates affordable services to the common man***



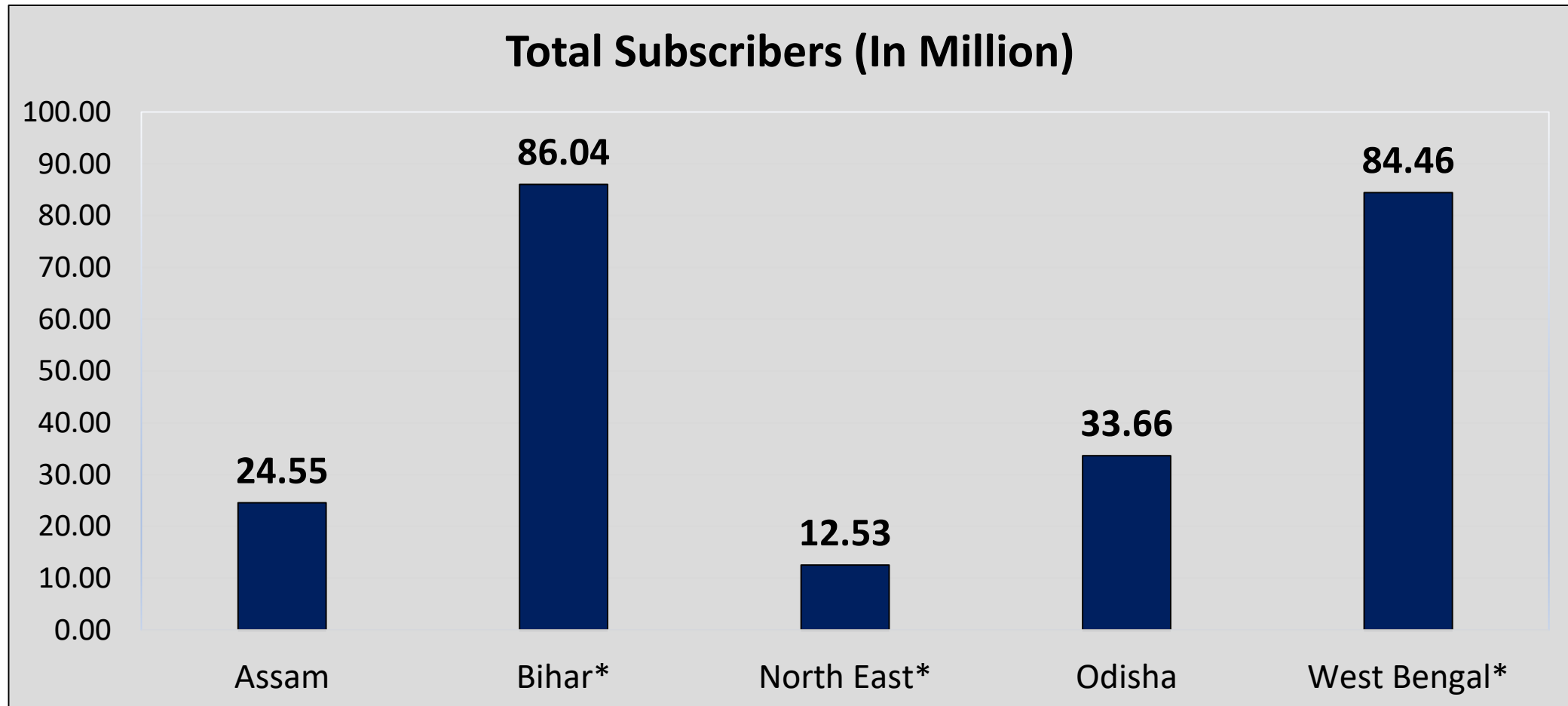
# Telecom Subscribers Status –Pan India & East - Northeast region States of India

# Telecom Subscribers Status- India

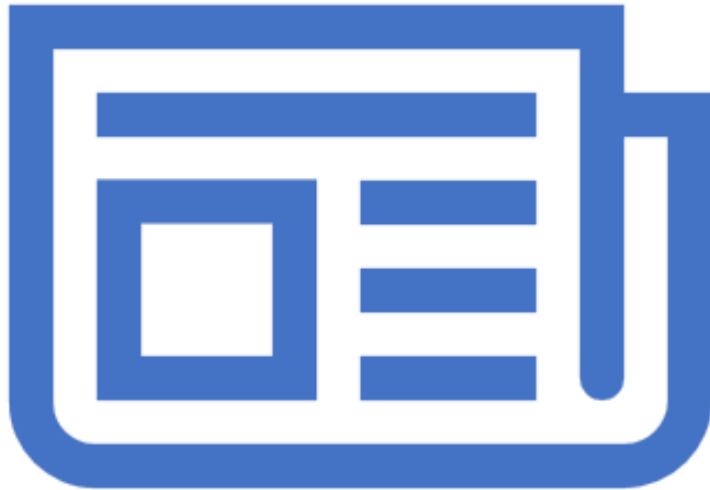
Telecom subscribers (in Million)



# Telecom Subscriber Status- East & Northeast region States

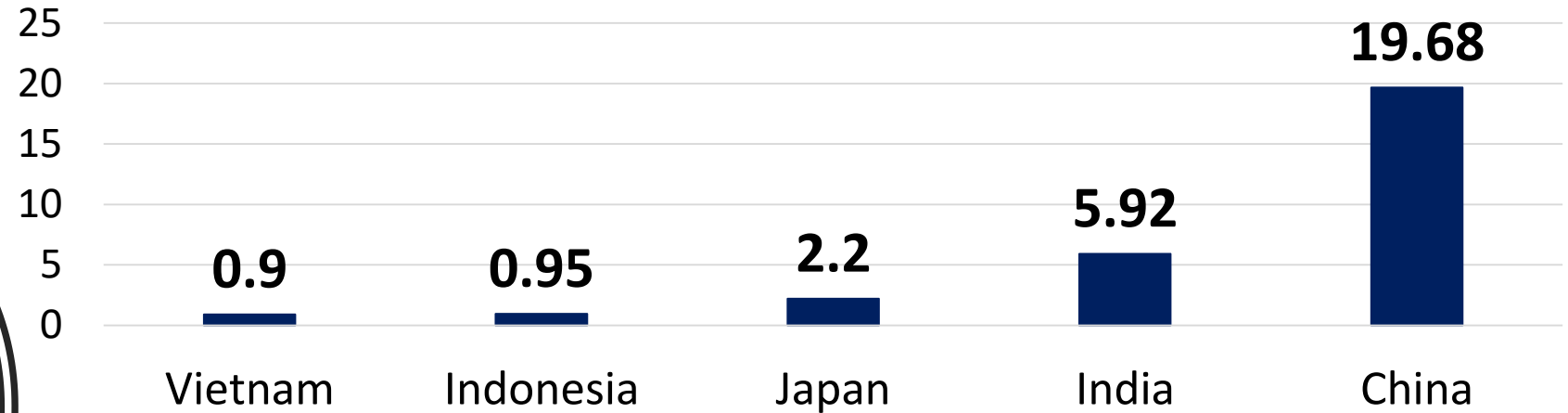


\*Bihar includes Jharkhand subscribers, North East includes Arunachal Pradesh, Manipur, Mizoram, Meghalaya, Nagaland, Tripura subscribers & West Bengal includes Sikkim subscribers.



# Telecom Infrastructure Status –Asian Countries, Pan India & East - Northeast region States of India

# Asian Tower Market- No. of Towers (Top 5) (In Lakh)



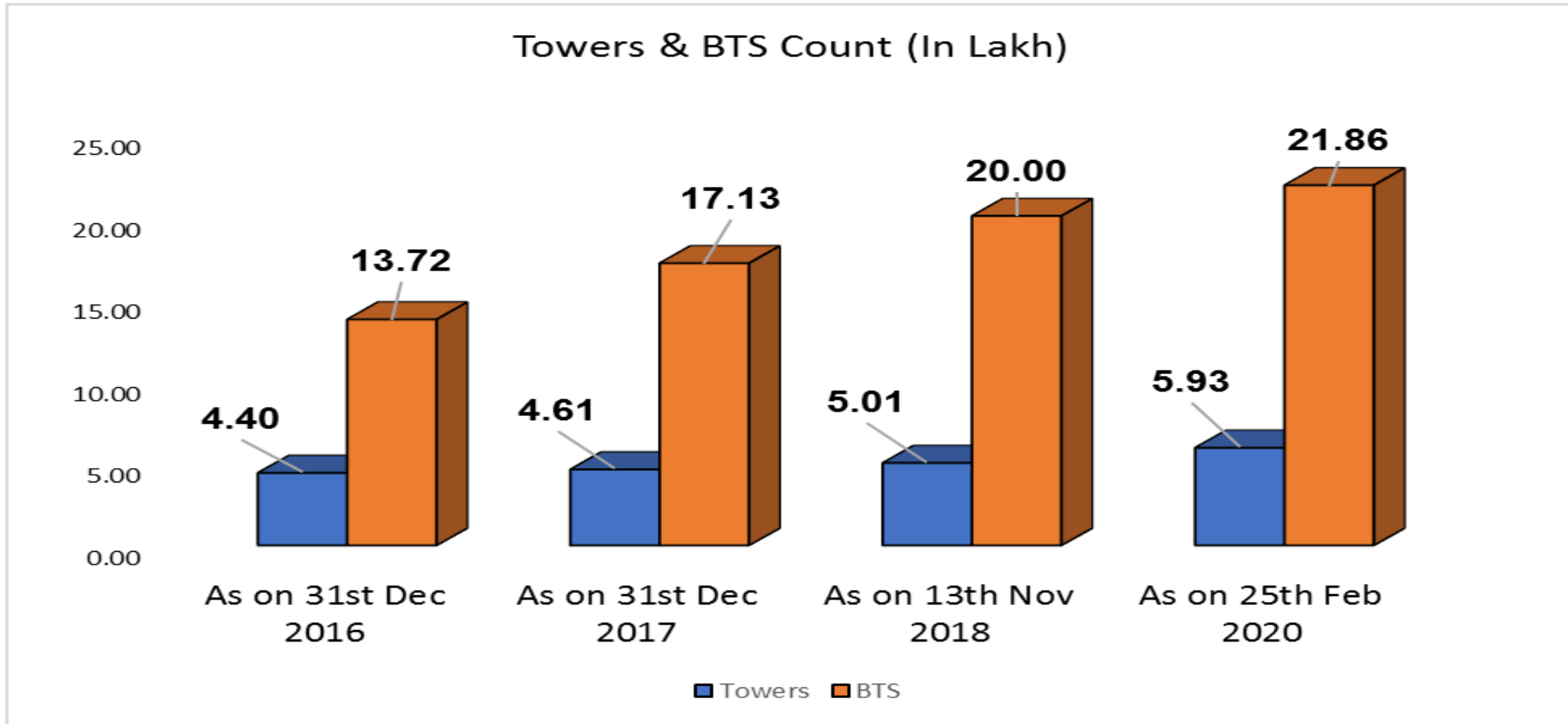
Telecom  
Tower Count-  
Asian Market



# Tower Vs Population Analysis (Top 5 Asian Countries)

Towers Vs Population Analysis (Asian- Top 5 Countries)				
Sr. No.	Country	Population (In Million)	Total Towers (In Lakh)	Remarks (Population per tower)
1	China*	1435	19.68	729.17
2	India**	1211	5.90	2054.14
3	Japan*	124.8	2.20	567.27
4	Indonesia*	270.63	0.96	2832.16
5	Vietnam*	96.46	0.90	1071.78
<p><b>Note:</b>                      * Country Population source: Google (For Year 2018-19)                      ** Country Population source: Census 2011 report</p>				

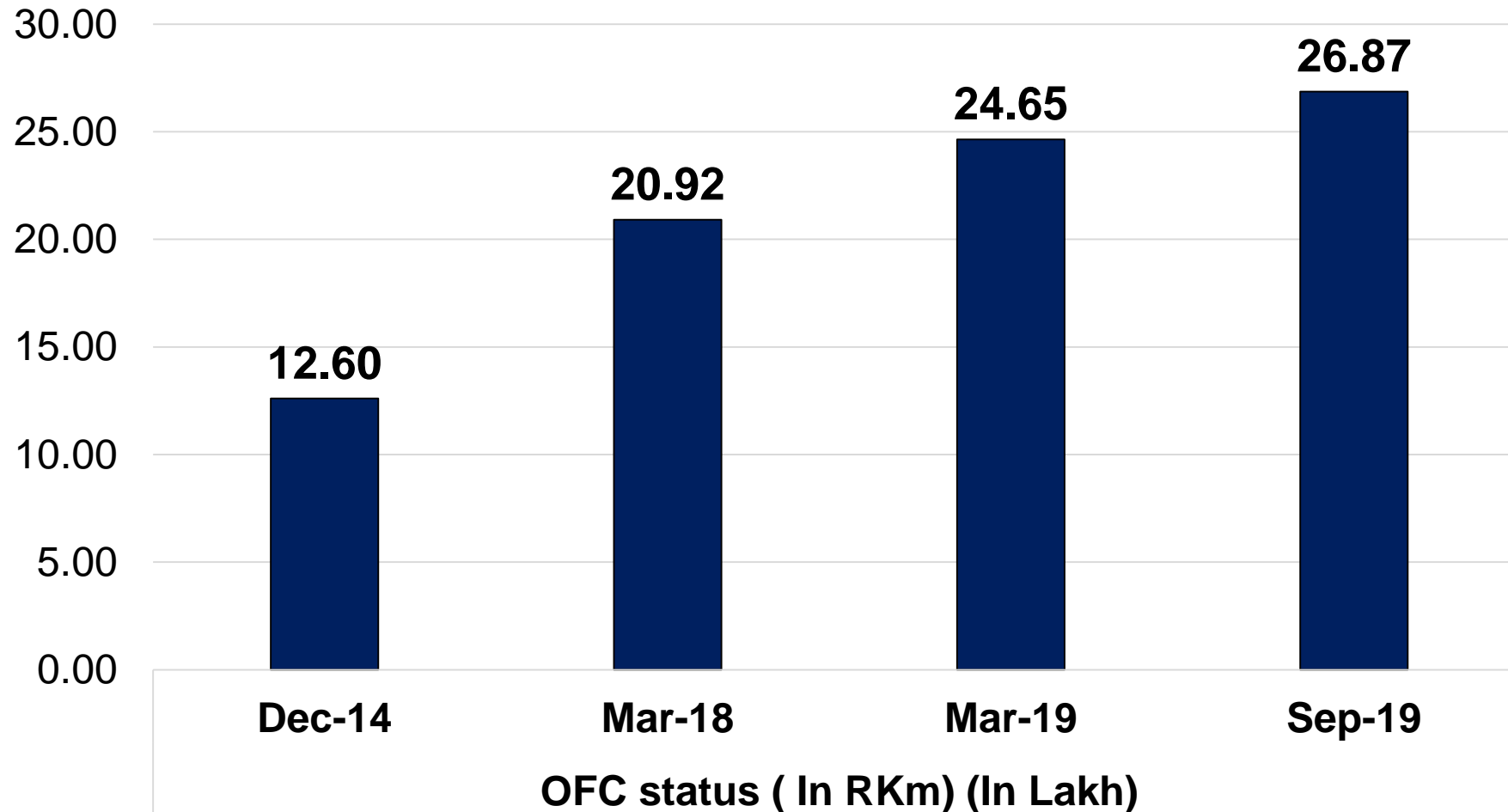
# Tower and BTS Growth (Dec'16 – Feb'20)- Pan India



(In Lakh)	As on 31st Dec 2016	As on 31st Dec 2017	As on 13th Nov 2018	As on 25th Feb 2020
Towers	4.40	4.61	5.01	5.93
BTS	13.72	17.13	20.00	21.86

# Fiber rollout Growth (Dec'14 – Sep'19)- Pan India

## Fibre rollouts

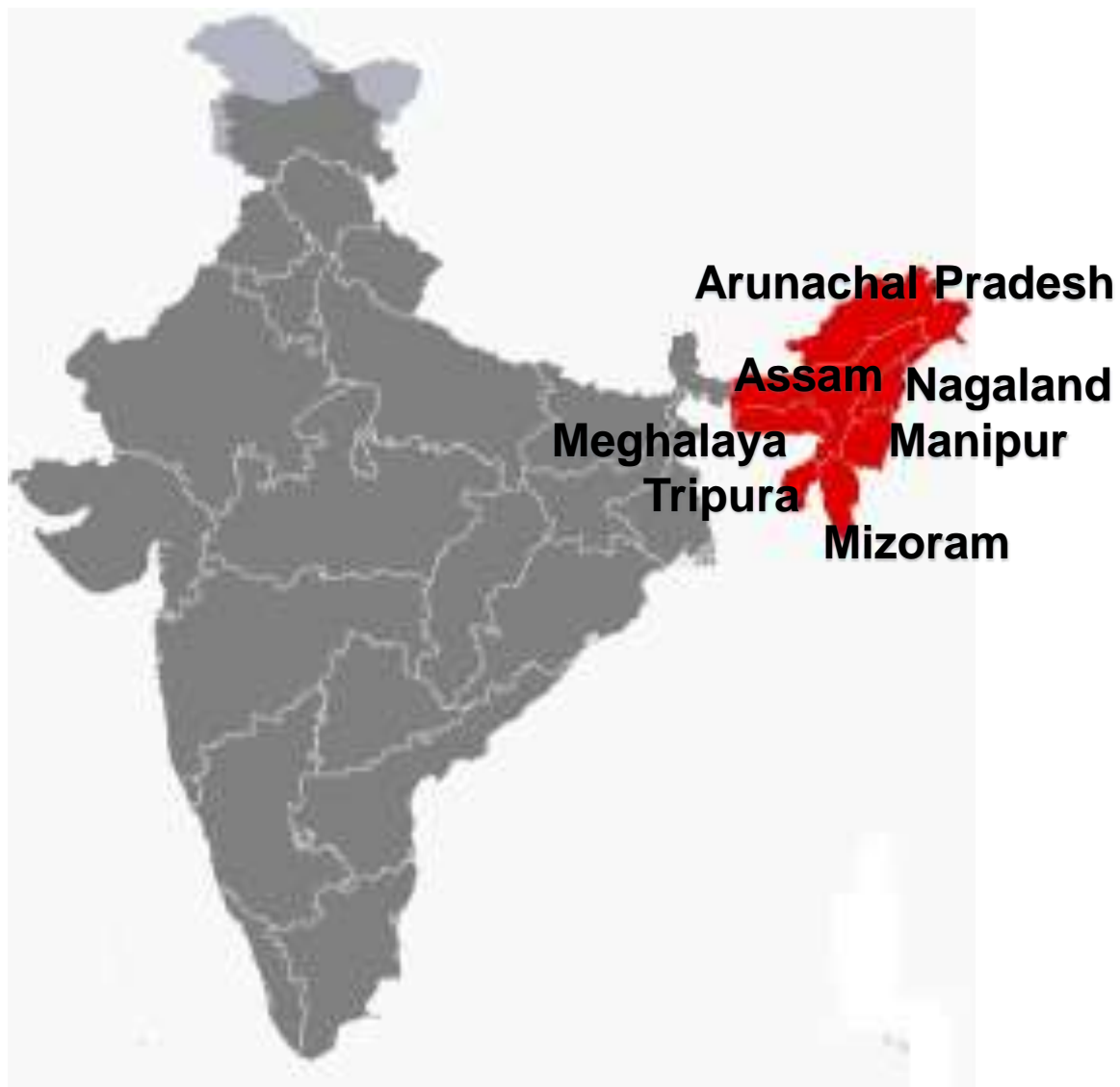


# Telecom Tower & BTS Count - East Region



States	BTS (In Thousand)	Mobile Towers (In Thousand)
Bihar	91.48	30.03
Jharkhand	37.81	13.63
Odisha	63.04	19.37
Sikkim	2.18	0.58
West Bengal	100.39	24.30
<b>Total</b>	<b>294.90</b>	<b>87.92</b>

# Telecom Tower & BTS Count - Northeast Region



States	BTS (In Thousand)	Mobile Towers (In Thousand)
Arunachal Pradesh	3.42	1.13
Assam	49.24	13.65
Manipur	6.00	2.06
Meghalaya	5.67	1.78
Mizoram	2.90	0.92
Nagaland	4.49	1.35
Tripura	6.90	2.00
<b>Total</b>	<b>78.60</b>	<b>22.89</b>

**Population per Tower- East Region  
as on 25.02.2020**

Sr.No.	State	Population (In Million)	Total Towers	Population per tower
1	Bihar	103.8	30029	3457
2	Jharkhand	32.99	13630	2420
3	Odisha	41.94	19374	2165
4	Sikkim	0.6	583	1029
5	West Bengal	91.34	38231	2389

Population  
per tower-  
**East** region  
States

***More the Population per tower more the connectivity & coverage issues***

**Population per Tower- Northeast Region  
as on 25.02.2020**

Sr.No.	State	Population (In Million)	Total Towers	Population per tower
1	Arunachal Pradesh	1.38	1129	1222
2	Assam	31.16	13654	2282
3	Manipur	2.72	2056	1323
4	Meghalaya	2.96	1783	1660
5	Mizoram	1.09	921	1183
6	Nagaland	1.98	1351	1466
7	Tripura	3.67	1996	1839

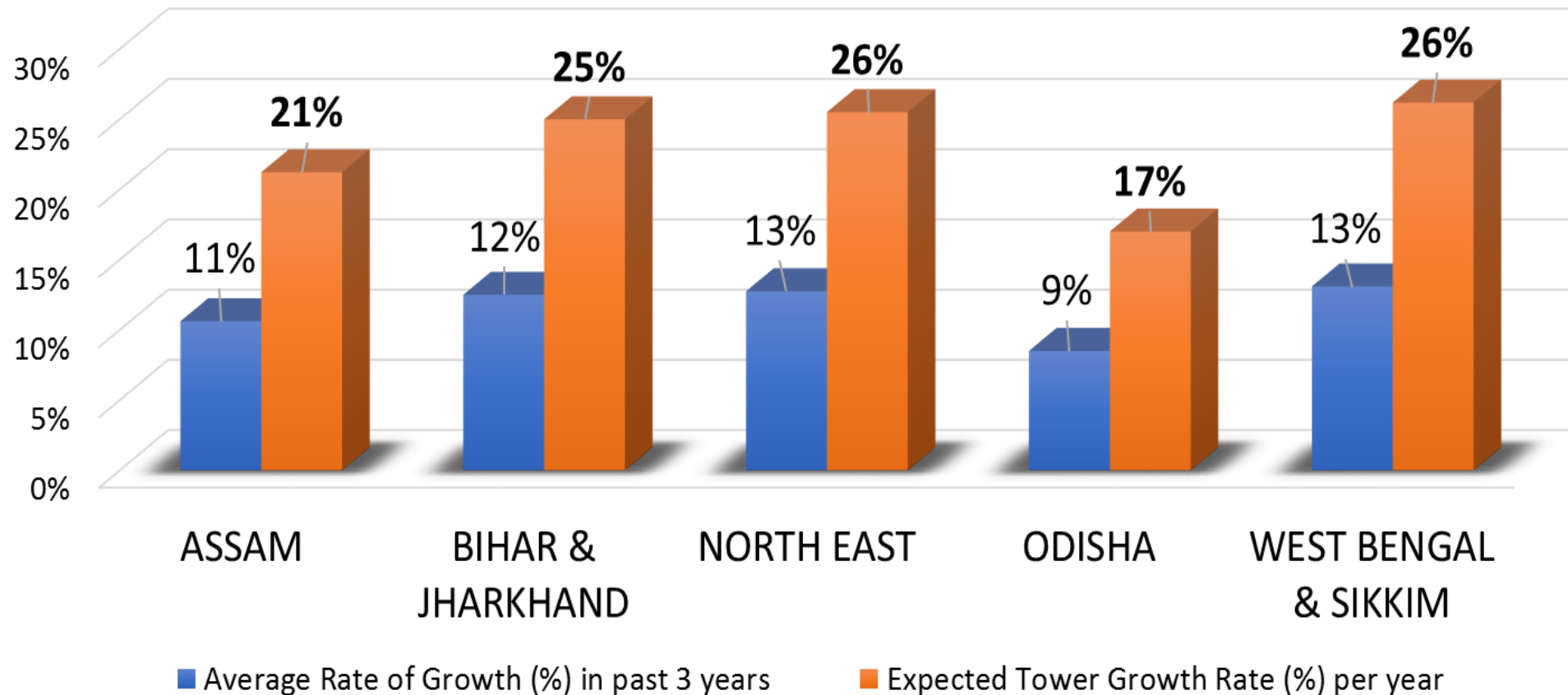
Population  
per tower-  
**Northeast**  
region States


***More the Population per tower more the connectivity & coverage issues***

# Telecom Tower Growth rate Vs expected growth rate

## East & Northeast region States

### Telecom Tower Growth Rate in East & Northeast States (Average for 3 years (2016-2019))





*East & Northeast States  
need more than double  
the number of towers.*



# Government Initiatives

# Prime Minister's Vision: Digital India & Smart Cities



To transform India into digitally empowered society & knowledge economy

**Smart Solutions**  
Smart Governance  
Smart Energy  
Smart Environment  
Smart Transportation  
Smart IT & Communications  
Smart Buildings

**Robust Telecom Infrastructure is the bedrock for achieving this Vision**

## Vision

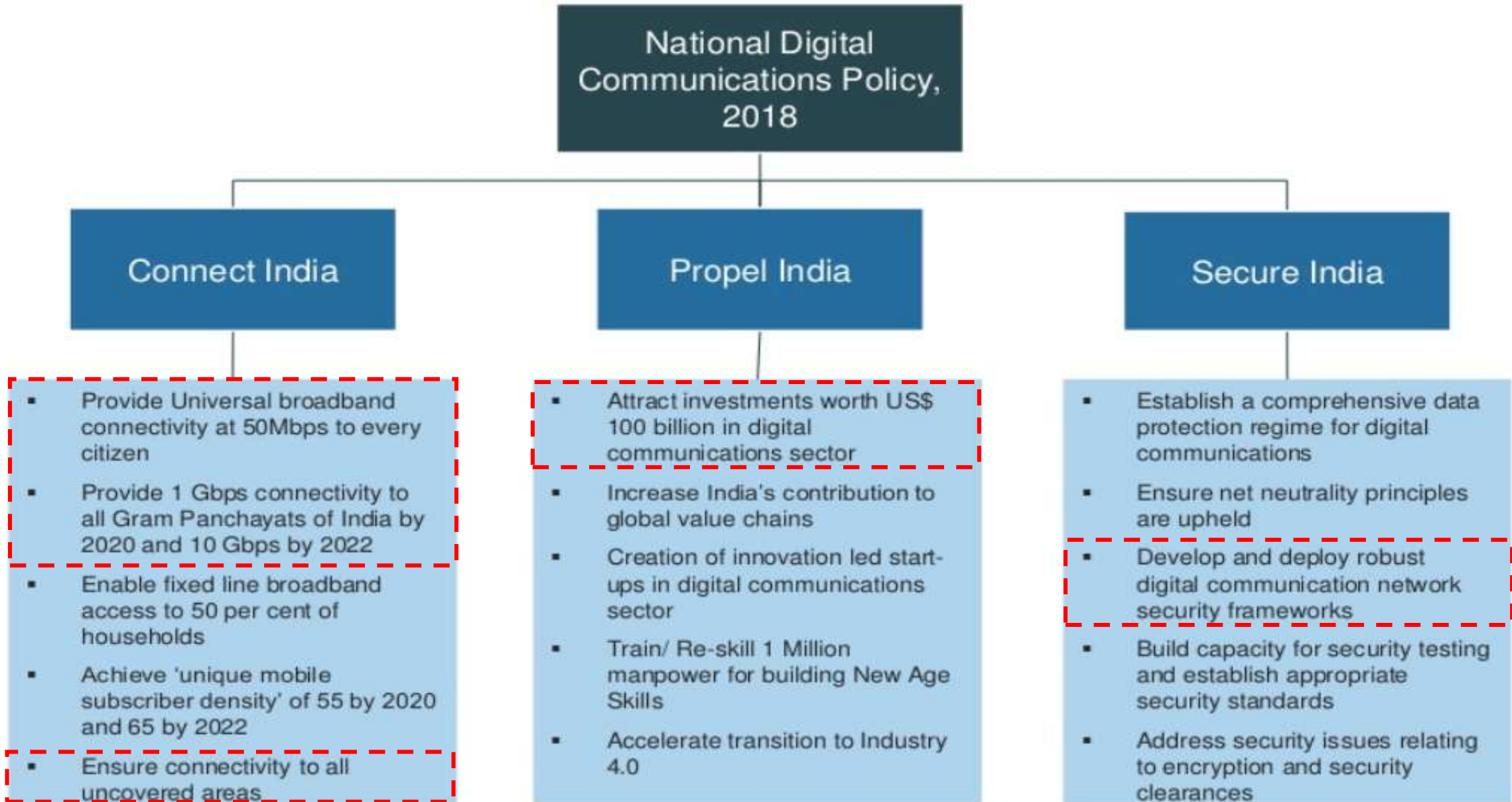
To enable fast track growth of digital communications infrastructure, bridge the digital divide for digital empowerment and inclusion, provide affordable and universal access of broadband for all.



**National Broadband Mission launched on 17<sup>th</sup> December 2019**

# National Digital Communications Policy (NDCP) 2018

Gazette Notified on 22<sup>nd</sup> October 2018



# Indian Telegraph RoW Rules 2016

Gazette Notified by DoT on 15<sup>th</sup> November 2016

## Salient Features:

- ✓ Uniformity of RoW Rules across the Country
- ✓ Both Underground and Overground Infrastructure
- ✓ No restriction on location of tower
- ✓ Deemed permission within 60 days
- ✓ Nominal One-Time Administrative fee
  - Underground Infra (Fiber Cable) – INR 1,000 / KM
  - Overground Infra (Towers) – INR 10,000 / tower
- ✓ Grievance Redressal Mechanism (STC & DTC)
- ✓ A Nodal officer and an electronic process to receive and process applications for grant of RoW permissions
- ✓ Dispute Resolution within a period of 60 days

**State/UT Telecom Infrastructure Policies needs to be aligned with Indian Telegraph RoW Rules 2016**

**Multiple letters issued by DoT  
to States.**

DoT Letter to CS of State/UTs for  
adopting RoW rules, 2016  
(23<sup>rd</sup> November 2016)

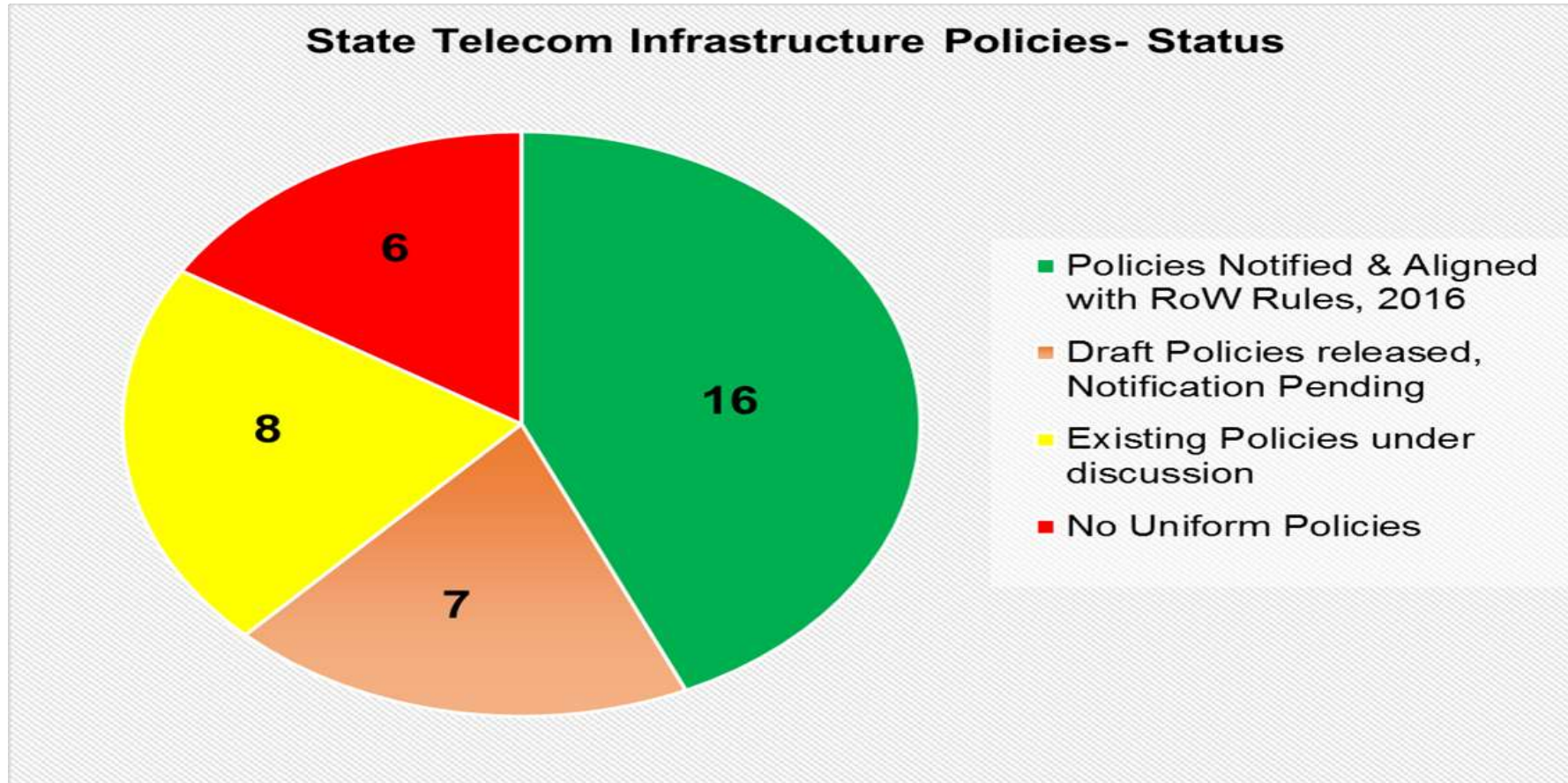
MoC Letter to CM of all  
States/UTs for availability of  
Government land & buildings for  
mobile tower installations.  
(3<sup>rd</sup> August 2015)



# Overview of State RoW Policies



# Status of Implementation of RoW Rules 2016 (Country-wide)



**Only 16 States have moreover aligned their RoW Policies with RoW Rules 2016 in past 3 years. Same needs to be expedited to enable telecom industry to build robust telecom infrastructure through out the States.**

# Progress in States/UTs

Policies Notified & Aligned		
S.No	State	Notified Date
1	Jharkhand	4th December 2015
2	Rajasthan	6th February 2017
3	*Tripura <b>Government Order</b>	8th September 2017
4	Odisha	14th September 2017
5	Haryana	6th October 2017
6	Assam	16th February 2018
7	Maharashtra	18th August 2018
8	*Tamilnadu <b>Government Order</b>	18th February 2018
9	Arunachal Pradesh	15th June 2018
10	Uttar Pradesh	15th June 2018
11	Uttarakhand	26th November 2018
12	Meghalaya	20th December 2018
13	Madhya Pradesh	8th March 2019
14	**Karnataka	29th May 2019
15	Nagaland	2nd December 2019
16	***Manipur	Approved by Cabinet, Notification awaited

\* GO only (Detailed Policy is under discussion)  
 \*\* Policy notified with some clauses not aligned with RoW rules, 2016  
 \*\*\* Policy in line with RoW rules 2016 approved by Cabinet, Notification awaited.

S. No.	Existing Policy Under Advance Discussion	Draft Policies released, Notification pending	No Uniform Policy
	State/UT		
1	Chandigarh	Mizoram	West Bengal
2	Gujarat	Punjab	Andaman & Nicobar
3	Goa	Himachal Pradesh	Lakshadweep
4	Chhattisgarh	Jammu & Kashmir	Dadar & Nagar Haveli
5	Andhra Pradesh	Kerala	Daman & Diu
6	Telangana	Sikkim	Ladakh
7	Pondicherry	Delhi	
8	Bihar		

\* Policy Issued/Notified on 29-May-2019. Not aligned with RoW Rules 2016.

**8 out of 16 East & Northeast States Policies aligned and approved/ Notified till date**

**2 East States Policies are under discussion for alignment / formation of Uniform policy.**

**2 Northeast States draft policies are under finalization.**

# RoW Policy Status in East Region

S.No.	East States	RoW Policy Status
1	Bihar	Existing Policy of 2012 & 2017 is not aligned with RoW rules, 2016
2	Jharkhand	Policy notified on 4 <sup>th</sup> December 2015, Same is aligned with RoW rules, 2016.
3	Odisha	Policy notified on 14 <sup>th</sup> September 2017, Same is aligned with RoW rules, 2016.
4	Sikkim	Draft Policy in discussion, same needs to be aligned with RoW rules, 2016.
5	West Bengal	Uniform Policy in line with RoW rules, 2016 is under discussion.

 Aligned  Under Discussion  Draft Stage

# RoW Policy Status in Northeast Region

S.No.	Northeast States	RoW Policy Status
1	Arunachal Pradesh	Policy notified on 15 <sup>th</sup> June 2018, Same is aligned with RoW rules, 2016.
2	Assam	Policy notified on 16 <sup>th</sup> February 2018, Same is aligned with RoW rules, 2016.
3	Manipur	Policy in line with RoW rules, 2016 approved by Cabinet, Notification awaited.
4	Meghalaya	Policy notified on 20 <sup>th</sup> December 2018, Same is aligned with RoW rules, 2016.
5	Mizoram	Draft Policy in line with RoW rules, 2016 is awaited for its notification.
6	Nagaland	Policy notified on 2 <sup>nd</sup> December 2019, Same is aligned with RoW rules, 2016.
7	Tripura	GO in line with RoW rules, 2016 issued on 8 <sup>th</sup> September 2017. Detailed policy yet to be formed.

Aligned
  Under Discussion
  Draft Stage



# Single Window Online Portal

# Single Window Online Portal for RoW Clearance

## States Online Portal Development- TAIPA Status

S.No	State	Policy Notified Date	Online Portal Status
1	Jharkhand	4th December 2015	Operational
2	Haryana	6th October 2017	Operational
3	Uttar Pradesh	15th June 2018	Operational
4	Uttarakhand	13th September 2018	Operational
5	Madhya Pradesh	8th March 2019	Operational
6	Delhi	As per MCD Mediation Agreement	Operational
7	Tamil Nadu	21st February 2018	Finalization Stage
8	Assam	16th February 2018	Development Stage
9	Odisha	14th September 2017	Development Stage
10	Maharashtra	17th February 2018	Development Stage
11	Telangana	Draft Stage	Finalization Stage
12	Chandigarh	Draft Stage	Under discussion
13	Punjab	Draft Stage	Under discussion
14	Kerala	Draft Stage	Under discussion
15	Himachal Pradesh	Draft Stage	Under discussion

**TAIPA is actively involved and supporting the States for developing their Online Single Window Portal**



# Common Issues in States

# Common key concerns in States hindering rollouts (1/5)

## Multiplicity of Policies

- ⑩ Various departments in States have issued their own policy for installation of telecom towers resulting in delayed telecom infrastructure roll-outs.
- ⑩ For instance – West Bengal, Bihar, Sikkim etc.

## Absence of Single Window Clearance

- ⑩ Approvals required from multiple authorities and multiple NoC's such as Fire Services, Airport Authority, Forest Department, etc
- ⑩ Delay hinders the roll-out of new sites

# Common key concerns in States hindering rollouts (2/5)

## Multiple Fees/Levies

⑩ Exorbitant Charges being levied under heads of One time charges, Renewal Fee, Developmental Charges which varies from Rs. 10,000 to Rs. 8,00,000 such as West Bengal, Bihar, Sikkim etc. which is not aligned with RoW rules, 2016.

## Non implementation of Notified Policies

⑩ Northeast & East State Policies notified & aligned with RoW rules, 2016 are not getting implemented down the line and permissions are getting delayed, which is impacting the overall Telecom Infrastructure growth in the respective States.

⑩ States where urgent support required: Odisha, Assam, Arunachal Pradesh, Meghalaya.

# Common key concerns in States hindering rollouts (3/5)

## Non-availability of Government Land and Building

- ⑩ Non-availability of Government Land & Buildings for installation of mobile Towers
- ⑩ Results in non-ubiquitous coverage leading to call drops, poor QoS, coverage gaps

## Security of Telecom Infrastructure

- ⑩ Cases of thefts and vandalism like diesel pilferage, battery thefts, resistance from local bodies & residents etc. are on a rise.
- ⑩ Leads to network breakdown impacting quality of services.

# Common key concerns in States hindering rollouts (4/5)

## Non-availability of Power

- ⑩ Non-priority electricity connection and lack of Availability of Grid Power in various pockets of the country
- ⑩ Commercial tariffs being charged from tower companies instead of industrial tariffs.

## Coercive action by State / Local authorities

- ⑩ Arbitrary Sealing of Towers / Fiber Cuts
- ⑩ Electricity disconnection impacting downtime and degrading the Quality of Services
- ⑩ Support required from States: Odisha, West Bengal, Bihar

# Common key concerns in States hindering rollouts (5/5)

## Restriction on Location

⑩ Restrictions on installation of telecom infrastructure on schools, colleges, hospitals, residential areas, jails etc. such as in Bihar which restricts towers in residential areas, schools, hospitals, heritage etc.

## EMF Exposure Concerns

- ⑩ Restriction on location of towers due to prevailing myths related to EMF radiation
- ⑩ Major issues faced in States like Odisha, Bihar, Sikkim etc.



## Support Required from State Governments

# Support Required from State Governments

- ✓ Alignment of State Telecom Infrastructure Policy with RoW Rules 2016
- ✓ Comprehensive Policy covering Underground (Fiber) and Overground (Tower) Infrastructure both
- ✓ One-time Nominal Fee to cover only Administrative expenses
- ✓ Single-window Online Clearance in a time-bound manner (deemed approval)
- ✓ No restriction to be imposed on locations of mobile towers
- ✓ Availability of Government Land & Buildings for installation of Mobile towers
- ✓ Electricity connections to be provided on priority at industrial tariffs
- ✓ Strict penal norms in State Telecom Policies for security and safety of telecom infrastructure
- ✓ No coercive action without prior intimation to the affected party
- ✓ Grievance Redressal mechanism by formation of STC/DTC
- ✓ Common Duct policy under Dig Once umbrella

**Forward looking RoW Policy is essential to realize Government's visionary & ambitious programs such as Digital India & SMART Cities**

# Specific Support required from East & Northeast State Governments

S.No.	East & Northeast States	Support Required
1	Arunachal Pradesh	1. Bank Account details- District Wise for submitting the requisite permission charges.
2	Assam	1. Implementation of Assam 2018 Policy down the line. 2. Long pending Permissions to be issued at the earliest. 3. Single Window Online Portal to be launched on priority. 4. Removal of Annual Charges from Private land & buildings.
3	Bihar	1. Alignment / Formation of Bihar Policy in line with RoW rules, 2016. Same is under discussion from past 4-5 years.
4	Manipur	1. Notification of final cabinet approved policy.
5	Meghalaya	1. Bank Account details- District Wise for submitting the requisite permission charges.

## Specific Support required from North State / UT Governments

S.No.	East & Northeast States	Support Required
6	Mizoram	1. Draft Policy which is in line with RoW rules, 2016 to be notified.
7	Nagaland	1. Removal of Annual Charges from Private land & buildings.
8	Odisha	<ol style="list-style-type: none"> <li>1. Implementation of Odisha 2017 Policy down the line.</li> <li>2. Long pending Permissions to be issued at the earliest.</li> <li>3. Single Window Online Portal to be launched on priority.</li> </ol>
9	Tripura	1. Detail Policy with uniform procedure, documents list, provisions for street furniture's, Government land & buildings allotment procedure, regularization procedure, online portal provision etc.
10	Sikkim	1. Draft Uniform Policy needs to be aligned with RoW rules, 2016 before its final notification.
11	West Bengal	1. Uniform Policy in line with RoW rules, 2016 be finalized and notified as same is much needed for growth of Telecom infrastructure in State of West Bengal.



**taipa**

*Tower and Infrastructure  
Providers Association*

# Thank You

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