Indian Telecom Sector – An Assessment of Indian Telegraph Right of Way Rules, 2016

A Dissertation submitted to the Panjab University, Chandigarh for the award of Master of Philosophy in Social Sciences, in partial fulfilment of requirement of Advanced Professional Programme in Public Administration (APPPA)

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CERTIFICATE

I am pleased to certify that **Shri Manish Kumar Agarwal** has pursued his research work and prepared the present dissertation titled **"Indian Telecom Sector – An Assessment of Indian Telegraph Right of Way Rules, 2016"** under my guidance and supervision. The dissertation is the outcome of his own research and to the best of my knowledge, no part of it has earlier comprised any other monograph, dissertation or book. This is being submitted to the Panjab University, Chandigarh, for the purpose of Master of Philosophy in Social Sciences in partial fulfilment of the requirements for the Advanced Professional Programme in Public Administration (APPPA) of Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of **Shri Manish Kumar Agarwal** is worthy of consideration for the award of Master of Philosophy degree of Panjab University, Chandigarh.

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EXECUTIVE SUMMARY

Telecommunications has been widely recognized as an enabler of socio-economic development of a country. The criticality of telecommunications was underlined during the recent COVID-19 pandemic wherein it emerged as a lifeline by providing information highways for wheels of economy to roll on. It helped sustain demand and enabled people to remain connected during the most difficult of times.

In order to cater to the ever exploding data traffic on the networks, the improvement and expansion of telecommunications services is a constant requirement. This in turn calls for accelerated roll out of telecommunications infrastructure that acts as bedrock for the telecom services. In this regard, timely and affordable permissions from authorities for 'Right of Way'(RoW) for establishment of telecommunications infrastructure acts as a catalyst to realize the full potential of the digital communications sector.

In order to address issues regarding permissions and to enable faster roll out of telecommunications services, the Union Government notified the 'Indian Telegraph Right of Way Rules, 2016' on 15th November, 2016 followed by several amendments. However, the problems in getting Right of Way permissions are still aplenty leading to inordinate delays and excessive costs. The fact that telecommunications is a Central subject but the Right of Way (RoW) permissions are mostly granted by the respective State Governments and local bodies adds complexity to the issue.

The 5G services rollout, with its requirement of street furniture for establishment of small cells, is clearly visible over the horizon and gradually gaining traction. In view

of importance of small cells in roll out of 5G services, the importance of speedy and time bound Right of Way permissions in an efficient and transparent way cannot be overemphasized. Therefore, this study was undertaken to analyse the present scenario pertaining to Right of Way (RoW) for the Indian telecom sector, identify the issues and challenges, and suggest remedial measures as way forward.

ABBREVIATIONS

ASEAN	Association of South East Asian Nations
BG	Bank Guarantee
COAI	Cellular Operators Association of India
CPWD	Central Public Works Department
DCRI	Digital Communications Readiness Index
DIPA	Digital Infrastructure Providers Association
DMRC	Delhi Metro Rail Corporation
DoT	Department of Telecommunication
FTTH	Fiber To The Home
GBT	Ground Based Tower
GDP	Gross Domestic Product
GIS	Geographic Information System
GSMA	Global System for Mobile Communications Association
HDD	Horizontal Directional Digging
ICRIER	Indian Council for Research on International Economic Relations
ICT	Information and Communication Technologies
IP	Infrastructure Providers
ITU	International Telecommunications Union
MCD	Municipal Corporation of Delhi
MoRTH	Ministry of Road Transport & Highways
NBM	National Broadband Mission

NDCP	National Digital Communications Policy
NHAI	Natioanl Highway Authority of India
NMP	National Master Plan
NOC	No Objection Certificate
OFC	Optical Fiber Cable
PIB	Press Information Bureau
PSU	Public Sector Units
PWD	Public Works Department
ROW	Right of Way
RTT	Roof Top Tower
SMS	Short Message Service
TEC	Telecommunication Engineering Centre
TRAI	Telecom Regulatory Authority of India
TSP	Telecom Service Provider
ULB	Urban Local Bodies
UT	Union Territory
WFH	Work From Home

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Chapter 1: Introduction

1.1 Background

Telecommunications has been widely recognized as an enabler of socio-economic development of a country. Universal, secure, resilient and affordable telecommunications is indispensable for a nation. The significance of telecommunications and broadband pervades all sectors of economy as well as all sections of the society. According to a study by the World Bank, every 10-percentage-point increase in broadband penetration provides a boost of 1.38 additional percentage points to GDP growth — higher than any other telecommunication service (World Bank, 2009).

Accordingly, the National Digital Communications Policy (NDCP), 2018 (DoT, 2018) released by Department of Telecommunication (DoT) seeks to unlock the transformative power of digital communications networks and aims to provide broadband for all. The criticality of telecommunications was underlined during the COVID-19 pandemic. Telecommunications emerged as a lifeline for the economy by providing information highways for wheels of economy to roll on. Online education and 'Work From Home' (WFH) gained societal acceptance and became the order of the day. Telecommunications helped sustain demand and enabled people to remain connected during the most difficult of times.

A robust and reliable telecommunications infrastructure (optical fibre, towers, cables etc.) provides the basic foundation for telecom services. A study specifically for India conducted by Indian Council for Research on International Economic Relations (ICRIER) finds that a 10 percent increase in investment in telecommunications has the

potential to deliver on average a 3.3 percent increase in GDP of India (ICRIER, 2018). Lack of infrastructure is a serious impediment to the provision of world-class telecom services to the citizens of a country. The proliferation of high-speed broadband across the country requires fiberisation (connection of mobile base station tower with optical fibre) and densification of networks. However, India is still a fibre-challenged country with merely 35.1% of the mobile base stations connected with optical fibre as on 30th June, 2022 (DoT, 2022)

The road to establish telecommunications infrastructure in India has been fraught with obstacles and challenges. One of these challenges is in obtaining permission for 'Right of Way' (RoW) for establishment of telecommunications infrastructure. Right of Way is the legal right, established by usage or grant, to pass along a specific route through grounds or property belonging to another (TRAI, 2021). In order to facilitate expansion of telecommunications network and improvement of telecommunication services, an enabling regulatory framework to obtain Right of Way (RoW) permission by Telecom Service Providers (TSPs) and Infrastructure Providers (IPs) in a uniform, timely and non-discriminatory manner for establishment of telecommunication infrastructure is a pre-requisite.

In order to address issues regarding Right of Way permissions, the Union Government notified the 'Indian Telegraph Right of Way Rules, 2016' on 15th November, 2016 (DoT, 2016). This was done in exercise of the powers conferred by the Indian Telegraph Act 1885. These rules aimed at ensuring a uniform adoption of Right of Way rules across all the States along with streamlining the process of Right of Way

approvals for laying down of cables (underground) and setting up of telecom towers (overground).

The States and local bodies were expected to align their Right of Way rules and procedures with the above rules to facilitate creation and expansion of telecommunications infrastructure. While some of the States and local bodies have aligned their Right of Way rules and procedures either partially or fully with these rules, others are yet to align their policies. Besides, there are challenges with regard to Central authorities like Airports Authority of India, Indian Railways, Ministry of Urban Development etc. who cite differences with their own departmental rules. Therefore, the National Digital Communications Policy (NDCP), 2018 lays great emphasis on creating a collaborative institutional mechanism between Centre, States, and Local Bodies for common Rights of Way, standardisation of costs and timelines and removal of barriers to approvals.

The next generation of mobile technology i.e. 5G, which is at present in the process of being rolled out in the country, will usher in a paradigm shift in the Information and Communication Technologies (ICT) landscape. The 5G, which is the connectivity fabric of the future, has the potential for major societal transformation in India. 5G telecommunications network use much higher radio frequencies than earlier generation cellular networks. Although these higher frequencies are able to carry larger amounts of data, at the same time they have very short ranges. As a result, in order to ensure high speed, low latency and proper coverage in 5G, there is a requirement to install many additional small base station towers (small cells) close together - as close as 200 feet apart. The small cells are basically low powered radio base stations operating in

licensed or unlicensed spectrum that have a coverage range from a few meters up to a several hundred meters (GSMA, 2016). They can be deployed to increase the network capacity, facilitate connectivity and coverage in localized areas whether inside buildings or in outdoor spaces. According to the report titled 'Making India 5G Ready' submitted in August, 2018 by the '5G High-Level Forum' (DoT, 2018) constituted by Department of Telecommunications (DoT):

"5G will require massive addition of both above and below the ground infrastructure, both in passive and active categories. These include backhaul radios, antennas, towers, street furniture, and ducts etc. 5G infrastructure densification can exceed 1,000 Base Stations per Sq. Km."

To cater to the large requirement of small cells for rollout of 5G network, use of street furniture becomes imperative. Street furniture may be defined as objects in public spaces that, in the context of wireless infrastructure, house small cell units in boxes and are considered visually commonplace and acceptable to the public (TRAI, 2021). It is required that the street furniture should have a power source for the wireless equipment to function. Some of the examples of street furniture that can be used for small cell networks are utility poles, lamp posts, lit signage, information kiosks, traffic signals etc. In view of importance of small cells in roll out of 5G services, the importance of speedy and time bound Right of Way permissions in an efficient and transparent way cannot be overemphasized.

In order to facilitate faster and easier deployment of telecommunications infrastructure and enable faster rollout of 5G services in India, Union Government

notified further amendments to the Indian Telegraph Right of Way Rules, 2016 on 17th August, 2022 (DoT, 2022).

In July 2022, Department of Telecommunications (DoT) issued a Consultation Paper (DoT, 2022) with the objective of reimagining India's telecommunication legal framework. Comments from stakeholders were sought for a new law which is clear, precise, and attuned to the realities of the sector for realizing the potential of telecommunications. Right of Way for establishment of telecommunication infrastructure was also mentioned as one of the issues on which a new law is required. On the basis of the comments received and deliberations, DoT prepared the draft 'Indian Telecommunication Bill, 2022' (DoT, 2022) and invited further comments.

1.2 Statement of the Problem

Since long, getting affordable and timely Right of Way permission has been one of the major concerns in expansion of the telecom infrastructure across the country. The problem is compounded by the fact that although telecommunications is a Central subject, the Right of Way (RoW) permissions are mostly granted by the respective State Governments and local bodies. Due to non-alignment with Indian Telegraph Right of Way Rules, 2016, there are wide variations in the rates of Right of Way fees and charging mechanisms across various States, Municipal Corporations in cities and Central authorities. Many a times, the charges levied are arbitrary and at times even exorbitant. The time taken for granting permissions is also too long and there is an element of uncertainty in it. Non-uniform and tedious application processes, lack of single window clearance mechanism, denial of permissions by the authorities without assigning any

reason thereof, site restrictions and absence of a well defined dispute resolution mechanism have adversely affected the pace of development of telecommunications infrastructure in the country. The roll out of 5G, with its requirement of street furniture for establishment of small cells, adds a new dimension to the problem.

1.3 Objectives

The research aims to analyse the current scenario pertaining to Right of Way (RoW) for establishment of telecommunications infrastructure in India. The objectives of the research are as under:

i) To understand the Indian Telegraph Right of Way Rules, 2016 as amended from time to time.

ii) To identify the issues and challenges in obtaining Right of Way (RoW) permission in a uniform, timely and non-discriminatory manner for establishment of telecommunication infrastructure in the country

iii) To suggest remedial measures as way forward to facilitate easier and faster deployment of telecommunications infrastructure

1.4 Research Strategy and Research Design

The research strategy would be mixed i.e. qualitative as well as quantitative. The designs used would be both explanatory and descriptive.

1.5 Rationale and Justification

Digital infrastructure and services are increasingly emerging the world over as critical determinants and key enablers of a country's growth and well-being. The recent COVID-19 pandemic has renewed the focus on the importance of telecommunications as growth engine of new age economies. In order to cater to the ever exploding data traffic on the networks, the improvement and expansion of telecommunications services is a constant requirement. This in turn calls for accelerated roll out of telecommunications infrastructure that acts as bedrock for the telecom services. In this regard, timely and affordable permissions from authorities for 'Right of Way'(RoW) for establishment of telecommunications infrastructure acts as a catalyst to realize the full potential of the digital communications sector.

In order to address issues regarding permissions and to enable faster roll out of telecom services, the Union Government notified the Indian Telegraph Right of Way Rules, 2016 on 15th November, 2016 followed by several amendments. However, the problems in getting Right of Way permissions are still aplenty. The fact that telecommunications is a Central subject but the Right of Way (RoW) permissions are mostly granted by the respective State Governments and local bodies adds complexity to the issue. The availability of academic literature on assessment of Indian Telegraph Right of Way Rules, 2016 is almost nonexistent.

The 5G services rollout, with its requirement of street furniture for establishment of small cells, is clearly visible over the horizon and gradually gaining traction. Therefore, there is a pressing need to analyse the present scenario pertaining to Right of

Way (RoW) for the Indian telecom sector, identify the issues and challenges, and suggest remedial measures as way forward.

1.6 Research Questions

The research aims to answer the following questions:

i) What are the Indian Telegraph Right of Way Rules, 2016 as amended from time to time?

ii) What are the issues and challenges in obtaining Right of Way (RoW) permission in a uniform, timely and non-discriminatory manner for establishment of telecommunication infrastructure in the country?

iii) What are the possible remedial measures to facilitate easier and faster deployment of telecommunications infrastructure?

1.7 Research Methods and Data Sources

The methodology used for this research is based on mixed research strategy methods. A combination of theoretical and empirical methods has been used. The content analysis and field survey approach has been employed. The data sources used in the research are mainly secondary in nature gathered from various academic journals, periodicals, reports, policy documents and publications of Government of India organisations, Department of Telecommunications (DoT), International Telecommunications Union (ITU), Global System for Mobile Communications Association (GSMA), Telecom Regulatory Authority of India (TRAI), Telecommunication Engineering Centre (TEC), among other sources. The primary data

has been collected through a questionnaire and also through discussions with officials from Government, TRAI, Telecom Service Providers (TSPs), Infrastructure Providers (IPs), industry, associations etc.

1.8 Limitations

The research aims to analyse, with a broad national perspective, the current scenario pertaining to Right of Way (RoW) for establishment of telecommunications infrastructure in India in the backdrop of Indian Telegraph Right of Way Rules, 2016, as amended from time to time. However, there is no 'one size fits all' kind of solution as different States and local bodies are quite diverse in terms of geography, population density, status of telecom infrastructure, terrain etc. Therefore, each State warrants its own detailed State specific study which is beyond the scope of this research. Further, the time and resource constraints on this research work put a limit on the depth of research work.

1.9 Chapterisation Scheme

The chapterisation scheme is as under:

a) Chapter I- Introduction: It contains a brief introduction and background about the Indian Telegraph Right of Way Rules, 2016.

b) Chapter II- Literature Review: It includes details of literature review undertaken regarding the Indian Telegraph Right of Way Rules, 2016.

c) Chapter III- Indian Telegraph Right of Way Rules, 2016: An Analysis: The chapter analyses the Indian Telegraph Right of Way Rules, 2016 and the present scenario.

d) Chapter IV- Research Findings: It includes the findings of the study using mixed research strategy methods.

e) Chapter V- Recommendations and Conclusion: The chapter includes the recommendations and conclusion of the study on the basis of research findings.

f) Chapter VI- Bibliography

g) Chapter VII- Appendices

Chapter 2: Literature Review

i) International Telecommunications Union (ITU) report (2011) highlighted ways of stimulating the development of broadband infrastructure. It mentioned several approaches for Governments and regulators to consider to encourage licensees to deploy infrastructure, especially in areas previously not served by networks including ensuring and facilitating access to government land, including railways, electrical grids and road networks. It stated that Governments can streamline and standardize the application process for access to Rights of Way and pole attachments, and ensure just and reasonable fee structures. The recommendations were generic in nature and not specific to a country.

ii) Chhaya L. K. (2012) stated that troubles such as levy of high charges, lack of uniformity in decision making processes, unavailability of single window system for Right of Way clearance, long time in granting approval etc. impeded the expansion of telecom infrastructure in the nation. There was a need to assure unvarying procedures for Right of Way permissions across the country for apt and quicker deployment of telecom infrastructure. The issue of RoW permissions has been flagged but suitable remedial measures have not been suggested.

iii) International Telecommunications Union (ITU) White Paper (2016) highlighted the cost implications for FTTH capex for Indian subscriber as compared to other countries and compared costs of various components for rolling out broadband infrastructure. It stated that India had high to very high cost on account of RoW and civil work. Further, it recommended that significant effort were required to be directed by Asia-Pacific Governments and regional institutions like ASEAN and the SAARC to draft

regulatory and legal frame-works based on global and regional exemplars to facilitate efficient and optimal fixed broadband deployment which, in part, will support 5G services. This included, inter alia, enhanced Rights of Way (RoW) access. Although the issue of RoW access has been identified but the remedial steps have not been mentioned.

iv) National Digital Communications Policy (NDCP) (2018) provided great emphasis on creating a collaborative institutional mechanism between Centre, States, and Local Bodies for common Rights of Way, standardisation of costs and timelines and removal of barriers to approvals. It stressed on facilitating establishment of mobile tower infrastructure by according accelerated Rights of Way permissions for telecom towers in government premises. However, the methodology to create collaborative mechanism and achieve goals has not been outlined.

v) International Telecommunications Union (ITU) report (2018) highlighted key issues for policy makers to consider as they formulate strategies to stimulate investment in 5G networks. It mentioned that policy makers should agree upon standardized wayleave (Rights of Way) agreements to reduce cost and time to deploy fibre and wireless networks. The issue of RoW access has been marked but the remedial measures have not been suggested.

vi) Telecom Regulatory Authority of India (TRAI) White Paper (2019) highlighted that although comprehensive RoW rules 2016 have been declared, necessary steps need to be taken to follow up with the state governments for getting RoW rules 2016 implemented properly. Moreover, keeping with the requirements of small cell

deployment, suitable amendment in the RoW rules would be beneficial. The details of amendments required in RoW rules have not been mentioned.

vii) International Telecommunications Union (ITU) report (2020) stated that the opportunity remained for countries to further their efforts to improve the broadband ecosystem in their countries by continuing to adopt more of the recommendations put forth by the Commission, with a focus on implementation. The policy recommendations presented by the Commission over the past decade to be leveraged and effected in the decade of action included improvement in Right of Way regulations. The issue of RoW regulations has been flagged but the remedial steps have not been outlined.

viii) GSMA (2020) in a study concluded the need for government to recognise the importance of RoW policies for enhancing the digital connectivity, rolling out of tower and fibre infrastructure. Further, it was required to hasten the digital infrastructure rollouts at the local levels and at affordable costs with consistency and uniformity. It recommended a slew of measures to accelerate the Right of Way (RoW) for quicker deployment of broadband infrastructure in the country including single window clearance, uniform implementation of the RoW Rules 2016 by all States, structured aerial fiber in dense urban environments etc. However, the details of amendments required in RoW rules have not been suggested.

ix) Telecom Regulatory Authority of India (TRAI) (2021), inter alia, recommended that to overcome all these inefficiencies regarding Right of Way (RoW) permissions, the Central Government should come out first with the National RoW Policy, and subsequently it should also enact a model law for RoW permissions which should be

adopted by all Appropriate Authorities. For this purpose, the Central Government in coordination with the State Governments should consider constitution of a National RoW Council so that in time-bound manner the policy and legal framework for RoW permissions could be put-in-place. The recommendations were focussed on entire ecosystem for promotion of broadband and enhanced broadband speed.

x) Standing Committee on Information Technology report (2021) flagged the Right of Way issue as a big concern in our country. It noted that even though the Department of Telecommunications had issued the RoW Rules in 2016, only 16 states aligned their policies with the RoW rules with the result that different states have different rules. The Committee expressed its view that considerable efforts need to be made by DoT on topmost priority for implementation of uniform RoW policies in order to ensure that the RoW issues do not act as stumbling block in provision of best quality of services. To solve the RoW issues, the Committee desired that DoT should look into the matter by taking various stakeholders on board and come out with coherent and practical solutions. The Committee also felt that there should be common guidelines for States/UTs for RoW permission and specific provisions for the same may be made in municipal law. The details of amendments required in RoW rules have not been suggested.

xi) Telecom Engineering Centre (TEC) report (2022) recommended that there should be a uniform implementation of RoW rules across states, union territories and municipal bodies. The Indian Telegraph Right of Way Rules, 2016 should be amended to incorporate provisions for small cells on street furniture. The report is focussed solely on the aspects of small cell.

xii) The Economic Survey 2022-23 (2023) mentioned that as a major reform measure, Indian Telegraph Right of Way (Amendment) Rules, 2022, will facilitate faster and easier deployment of telegraph infrastructure to enable speedy 5G rollout. It further stated that the GatiShakti Sanchar portal, which was launched on 14 May 2022, will streamline the process of Right of Way (RoW) applications and permissions across the country. The amendments required in RoW rules have not been mentioned.

Chapter 3: Indian Telegraph Right of Way Rules, 2016- An Analysis

3.1 Indian Telegraph Right of Way Rules, 2016

In order to address the difficulties being faced by Telecom Service Providers (TSPs) in obtaining Right of Way permissions, the Indian Telegraph Right of Way Rules, 2016 were notified by the Union Government on 15th November, 2016 (DoT, 2016). This was done in exercise of the powers conferred by the Indian Telegraph Act 1885. A copy of the Gazette notification dated 15th November, 2016 is attached at Appendix-A. The aim of these rules was to ensure a uniform adoption of Right of Way rules across all the States along with streamlining the process of Right of Way approvals for laying down of cables (underground) and setting up of telecom towers (overground). The salient features of these rules are as under:

i) The appropriate authority must not take more than sixty days from the date of application to either grant permission or deny it.

ii) No application to be rejected unless an opportunity of being heard has been given to the applicant *(audi alteram partem).*

iii) The administrative expenses across the country to be rationalized to a maximum of Rs 1000 per km for fibre and a maximum of Rs 10,000 per application for the overhead towers. This one-time fee needs to be paid in order to meet administrative expenses for examination of the application and the proposed work.

iv) The applicant is required to pay restoration charges or compensation, as the case may be.

v) The appropriate authority under the rules has the power to supervise the execution of work to ascertain if the conditions imposed in the grant of permission are observed by the licensee.

vi) There is provision for the designation of nodal officer for the purpose of these rules.

vii) The permission shall be deemed to have been granted if the appropriate authority fails to either grant permission or reject the application within sixty days. The same shall be communicated in writing to the applicant not later than five working days after permission is deemed to have been granted.

vii) The appropriate authority to develop an electronic application process within one year of the rules coming into force for submission of applications.

viii) There is provision for the right of appropriate authority to seek removal and alter such telecom infrastructure in case of expedient circumstances.

ix) The rules provide for the dispute resolution by the officer designated by the Central Government within a fixed period of 60 days.

The Union Government through amendment dated 19th June, 2017 (DoT, 2017) to these rules designated the officers at the level of Secretary/ Principal Secretary for dispute resolution for each State/UT. It was further amended on 21st October, 2021 (DoT, 2021) to incorporate the provisions related to nominal one-time compensation and

uniform procedure for establishment of overground telegraph line. A copy of the Gazette notifications dated 19th June, 2017 and 21st October, 2021 are attached at Appendix-B and Appendix-C respectively.

To enable faster rollout of 5G services in India and facilitate easier and faster deployment of telecommunications infrastructure, the Union Government notified further amendments to the Indian Telegraph Right of Way Rules, 2016 on 17th August, 2022 (DoT, 2022). A copy of the Gazette notification dated 17th August, 2022 is attached at Appendix-D. Its salient features include:

i) To facilitate faster 5G roll out, simplification of the Right of Way application procedures for small cell has been done. Telecom licensees will be able to use street infrastructure to deploy telecom equipment at a nominal cost of Rs. 150 per annum in rural areas and Rs. 300 per annum in urban areas.

ii) To facilitate fiberisation, street infrastructure may be utilized at a nominal cost of Rs. 100 per annum to install overground optical fibre.

iii) Distinction between 'poles' and 'mobile towers' has been created. Overground infrastructure of height up to 8 meters is to be treated as a pole. The requirement of regulatory permissions for establishment of poles will be minimal.

iv) Provision of a single window clearance system for Right of Way (RoW) applications instead of multiple platforms of States/ UTs has been made. GatiShakti Sanchar portal of Ministry of Communications to be the single window portal for all applications related to telecommunications to improve 'Ease of Doing Business'.

v) Rationalisation of the administrative fees has been done to reduce the cost of compliance as under:

- No administrative fee shall be charged by Central Government or its agencies for establishment of poles on the land owned/controlled by them.
- For State/UTs, the administrative fee for establishment of poles shall be limited to Rs. 1,000 per pole.
- Administrative fee for laying overground optical fiber shall be limited to Rs. 1,000/ km.

vi) Uniformity in calculation of area and associated charges for the telecom infrastructure across the country has been introduced by prescription of a methodology to compute the area occupied by telecom infrastructure. This is done to facilitate the telecom licensees as different agencies use different methodologies to compute the area occupied by telecom infrastructure for payment of proportionate charges.

vii) Rationalisation of the cost of restoration has been done in order to bring down the cost of deployment of telecommunications infrastructure. The following measures have been taken:

- Earlier, if the telecom licensee undertook the restoration work, a bank guarantee amounting to 100% of restoration cost was required to be

submitted to the concerned agency. The amount of bank guarantee has been drastically reduced to 20% of the restoration cost only.

- In case the telecom licensee wishes to pay the concerned agencies, the cost of restoration shall be calculated at the rates prescribed by Central Public Works Department (CPWD) or Public Works Department (PWD) of the State/UTs.

viii) No compensation is required to be paid by telecom licensees for land used for establishment of poles.

ix) With the advancement of technology, optical fiber cables can now be laid using Horizontal Directional Digging (HDD) technology obviating the need for digging of a full trench. In such cases, the restoration charges are required to be paid only for the pits, and not for the entire route by the telecom licensee.

ix) The installation of telecommunications infrastructure on private property will not require any permission from any Government authority. In such cases, only prior intimation along with structural suitability certificate is to be given by the telecom licensees.

In addition, a clarification regarding Indian Telegraph Right of Way Rules, 2016 was issued by the Union Government on 26th October, 2022 (DoT, 2022). It was clarified that in case of rejection of application on account of deficiency in the documents submitted by the applicant, the application fee shall not be deducted (fully or partly) by agencies processing the application. The application fee paid shall be adjusted on re-submission of application after rectification for the same site.

Besides, it was also clarified that the term 'Street Furniture' mentioned in the Indian Telegraph Right of Way (Amendment) Rules, 2022 includes 'post/ pole used for electricity, street light, traffic light, traffic sign, bus stop, tram stop, taxi stand, public lavatory, memorial, public sculpture, utility pole or any other structure or contrivance of such nature established over the property of an appropriate authority'. A copy of the clarification dated 26th October, 2022 is attached at Appendix-E. A summary of Indian Telegraph Right of Way Rules, 2016 as amended from time to time is depicted in Figure 3.1 below:

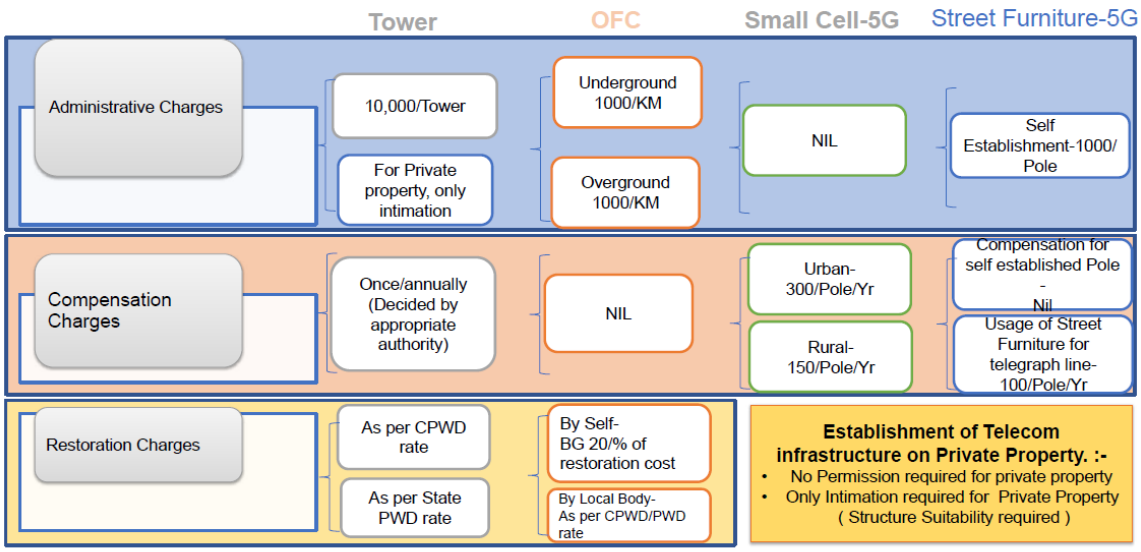


Figure 3.1: Summary of Indian Telegraph RoW Rules, 2016

(Source: https://gatishaktisanchar.gov.in/presentation/2)

3.2 GatiShakti Sanchar Portal

In order to streamline the process of Right of Way (RoW) applications and overcome the challenges in obtaining permissions across the nation, Department of Telecommunications (DoT) launched the 'GatiShakti Sanchar' portal

(www.sugamsanchar.gov.in) for centralised Right of Way (RoW) approvals on 14th May, 2022 (PIB, 2022) . The portal was developed keeping in view the vision areas of the National Broadband Mission (NBM) at the core. The National Broadband Mission (NBM) was launched by the Department of Telecommunications (DoT) on 17th December, 2019 to facilitate universal and equitable access to broadband services across the nation, especially in rural and remote areas. It envisions to provide broadband infrastructure as a core utility to every citizen, Governance and services on demand which, in turn, would lead to digital empowerment of the citizens. To fulfil this vision, creation of broadband backbone across the country by facilitating smooth and efficient deployment of Digital Communications Infrastructure is imperative. The GatiShakti Sanchar portal aims to facilitate the 'Ease of Doing Business' and provide a robust mechanism to achieve the goal of 'Broadband for All' as envisaged in the National Digital Communication Policy-2018. The homepage of the GatiShakti Sanchar portal is shown in Figure 3.2 below:

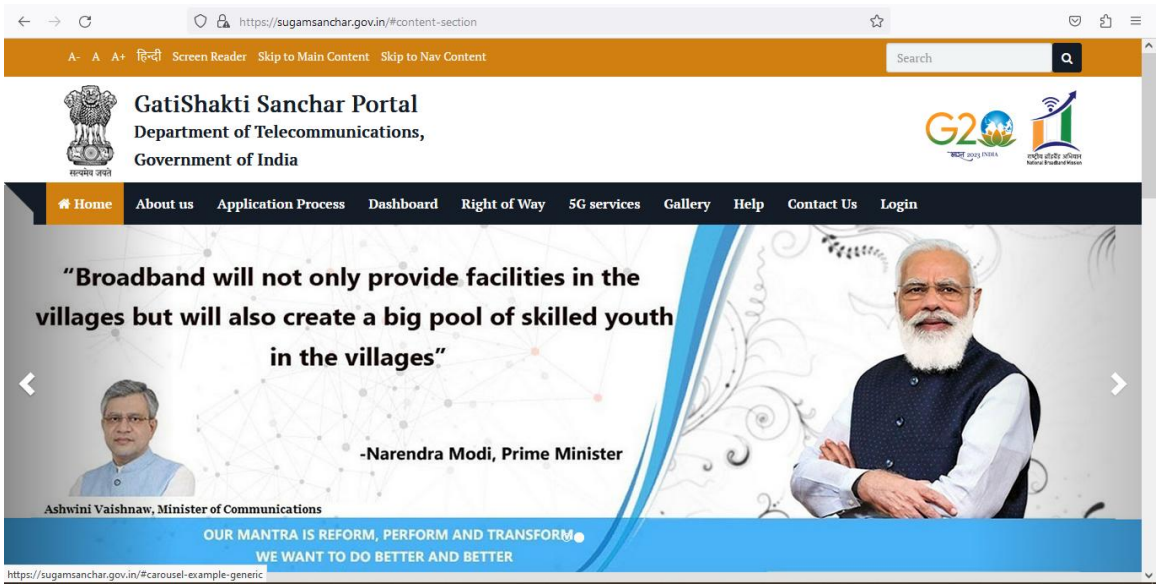


Figure 3.2: GatiShakti Sanchar Portal

(Source: https://sugamsanchar.gov.in)

The GatiShakti Sanchar portal is essentially a collaborative institutional mechanism between all stakeholders including Central and State/UT Government(s), local bodies and Telecom Service Providers (TSPs)/ Infrastructure Providers (IPs) to facilitate the Right of Way (RoW) application process through a single interface (DoT, 2022). It provides the much needed single window platform for Telecom Service providers (TSPs) as well as Infrastructure Providers (IPs) to apply for Right of Way (RoW) permissions to lay cables and set up telecom towers to State/UT Governments and local bodies. Before the launch of the portal, the application process for Right of Way (RoW) permissions was plagued by delays due to inconsistency and opacity of the system. The objective of the portal is to usher transparency, accountability and responsiveness in the process and fast track it to overcome the challenges of implementation of Indian Telegraph Right of Way Rules, 2016.

Another unique feature of the GatiShakti Sanchar portal is that it has been integrated with the Ministry of Railways, Ministry of Road Transport & Highways and Ministry of Defence (DoT, 2022). It is further planned to be integrated with the Ministry of Environment, Forest and Climate Change shortly. The portal offers facility to track applications in a centralised manner with automated alerts on application processing updates. To facilitate the applicants, a centralized help desk has been made operational. The portal also provides a dashboard that displays the pendency status - overall, State wise and district-wise which results in effective monitoring.

3.3 Indian Telegraph (Infrastructure Safety) Rules, 2022

Since telecommunications infrastructure provides the bedrock for telecom services, it is of utmost importance to ensure that it is secure and resilient. With the pace of development in various sectors of economy gaining momentum, the instances wherein the existing underground telecommunications infrastructure gets damaged due to excavation activities being undertaken by different agencies have been on the rise in recent years. The primary reason such damages take place is the lack of coordination between agencies undertaking excavation and the telecommunications infrastructure owner agencies. As far as telecommunications sector is concerned, it is estimated that there are approximately 10 lakh optical fiber cable cuts per year causing an economic loss to the tune of about Rs 3000 Crore per year (PIB, 2023). Therefore, to supplement the Indian Telegraph Right of Way Rules, 2016, which facilitate the establishment of telecommunications infrastructure, a need was felt for regulation to address the safety concerns of the existing telecommunications infrastructure.

Accordingly, the Union Government formulated the Indian Telegraph (Infrastructure Safety) Rules, 2022 which were published in the Gazette of India on 3rd January, 2023. The aim of these rules is to promote synergy between different agencies and avoid hardship to citizens due to breakdown of telecommunications infrastructure. The salient features of these rules are (PIB, 2023):

- Any person who wishes to exercise a legal right to dig or excavate any property which is likely to cause damage to a telegraph infrastructure shall give notice to the licensee, prior to commencement, through common portal.

- The information shall include the name and address of the person exercising the legal right, details of the agency, contact details, date and time of start of the exercise, description and location of the exercise and the reasons for such dealing.

- The licensee shall, as expeditiously as possible, provide through the common portal, the details of telegraph infrastructure owned/ controlled/ managed by them, falling under/ over/ along the property with which the person intends to deal, along with precautionary measures for coordination in avoiding damages to the telegraph infrastructure.

- Excavators / utility asset owners will be given alerts via SMS, email and in-app notification and will also have the facility of 'Click to Call' from the app itself.

- The person digging or excavating shall take appropriate action on precautionary measures provided by the licensee.

- In case no licensee provides details within the prescribed time, the person having the legal right to dig or excavate shall be free to dig or excavate the property thereafter.

- Further, any person, who has dug / excavated any property causing damage to a telegraph infrastructure, shall be liable to pay the damage charges to the telegraph authority. The damage charges shall be computed based on such expenses as may be incurred in restoring damages.

- Once the asset owner agencies map their underlying assets with GIS coordinates on PM GatiShakti National Master Plan (NMP) platform, it will also be possible to know the presence of underlying utility assets, at the point of interest, before the start of excavation.

3.4 Present Scenario

Subsequent to the notification of the Indian Telegraph Right of Way Rules, 2016 by the Union Government on 15th November, 2016, it was expected that the States/ UTs would come out with their own Right of Way (RoW) rules which would be in alignment with those notified by the Union Government. All of the 36 States/ UTs except Delhi have notified their Right of Way (RoW) rules. Although Delhi has released its draft Right of Way (RoW) policy, the final policy is yet to be notified. However, Municipal Corporation of Delhi (MCD) has notified Right of Way (RoW) policy for small cells and telegraph lines (DoT, 2022).

The Union Government notified further amendments to the Indian Telegraph Right of Way Rules, 2016 on 17th August, 2022 in order to facilitate faster rollout of 5G

services in India and enable easier and faster deployment of telecommunications infrastructure. However, these amendments are yet to be reflected in the Right of Way (RoW) rules of majority of States/ UTs. At present only the following States/ UTs have made amendments in their respective Right of Way (RoW) rules in accordance with Indian Telegraph Right of Way (Amendment) Rules 2022 (DoT, 2022):

- Maharashtra
- Uttarakhand
- Lakshadweep
- Rajasthan
- Sikkim

One of the enabling features of the Indian Telegraph Right of Way Rules, 2016 is that the permission shall be deemed to have been granted if the appropriate authority fails to either grant permission or reject the application within sixty days. In this regard, Andaman and Nicobar Islands, Goa, Nagaland and Dadra and Nagar Haveli and Daman and Diu are yet to incorporate the clause of deemed approval in their respective Right of Way (RoW) rules. Besides, although the following States/ UTs have incorporated the clause of deemed approval in their respective Right of Way (RoW) rules, the same is yet to be implemented in their portal (DoT, 2022):

- Goa
- Gujarat
- Haryana
- Karnataka

- Kerala
- Maharashtra
- Nagaland
- Punjab
- Sikkim
- Tamil Nadu
- Uttarakhand

Besides, there is non- uniformity in the charges across States/UTs. A snapshot of the non-alignment of charges across States/UTs (DoT, 2022) is attached at Appendix-F. A glimpse into the variations in Right of Way (RoW) policies and issues involved across States/UTs (DoT, 2022) is attached at Appendix-G. Thus, it is evident that Right of Way (RoW) rules of a large number of States/UTs are not fully aligned with the Indian Telegraph Right of Way Rules, 2016 as amended from time to time both in terms of letter as well as spirit.

To ensure coordination and resolve operational issues between the various authorities, State Broadband Committee meetings are convened by field units of Department of Telecommunications (DoT). Besides, meetings of District Level Telecom Committees are conducted by DoT to sort out the local operational issues (DoT, 2022).

In order to ensure that the existing underground telecommunications infrastructure does not get damaged due to excavation activities being undertaken by different agencies, 'Call Before u Dig' **(**CBuD) app was launched by Department of Telecommunications (DoT) on pilot basis in Gujarat and Dadra and Nagar Haveli and

Daman and Diu in the month of October, 2022 . On the basis of its performance in the pilot project, it has been decided by DoT to extend it to all other States/UTs. A snapshot of the 'Call Before u Dig' **(**CBuD) app from Google Play Store is shown in Figure 3.3 below:

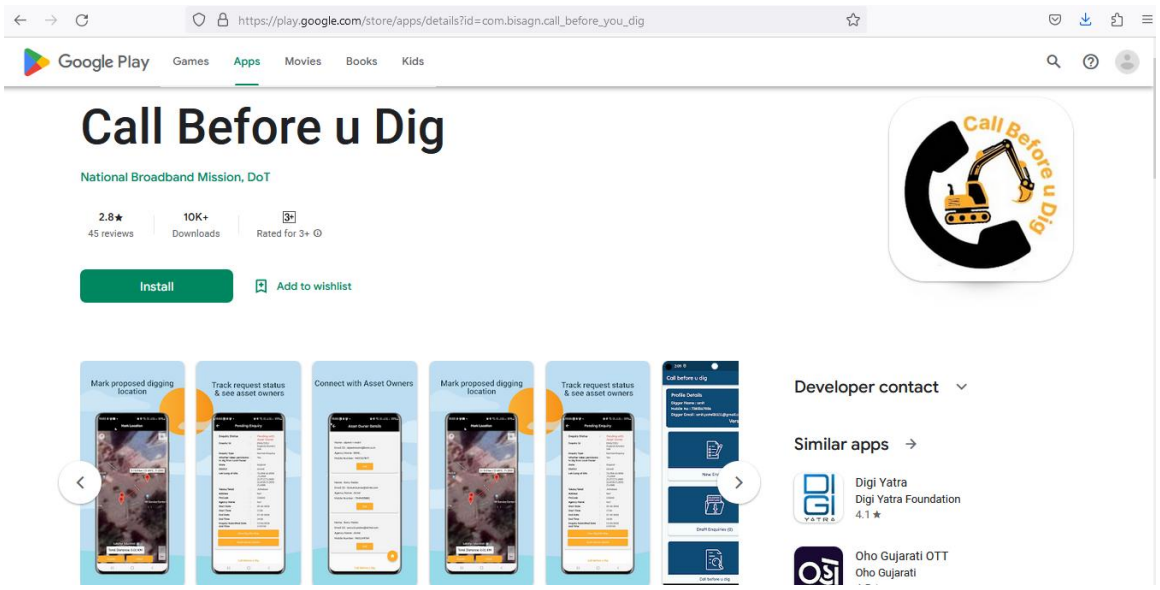


Figure 3.3: Call Before u Dig **(**CBuD) App

(Source: https://play.google.com/store/apps)

Department of Telecommunications (DoT) is pursuing and coordinating with all States/UTs ensure that all underground utility / asset owners i.e. agencies in respect of electric cables, water pipelines, gas pipe lines, sewerage etc. to complete mapping of contact details up to district level in an expeditious manner (DoT, 2022). They are also required to map their assets in the GatiShakti National Master Plan (NMP) portal. Further, the States/UTs need to mandate the agencies to do any type of digging only after prior intimation through Call Before u Dig **(**CBuD) app.

The launch of the GatiShakti Sanchar portal as a single window for centralised Right of Way (RoW) applications in May, 2022 by Department of Telecommunications (DoT) has provided impetus to the process of Right of Way (RoW) approvals. In addition to the centralised tracking of applications, it provides useful insights into the pendency status through its dashboard leading to better and efficient monitoring. An overview of the status of applications for States/ UTs as on 26th February, 2023 is shown in Figure 3.4 below:

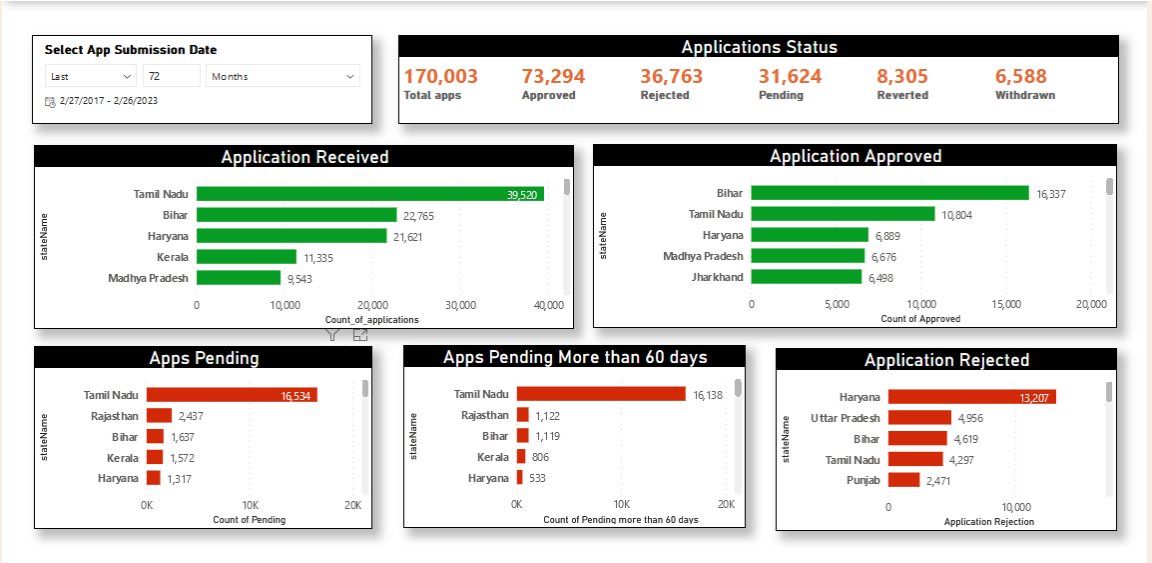
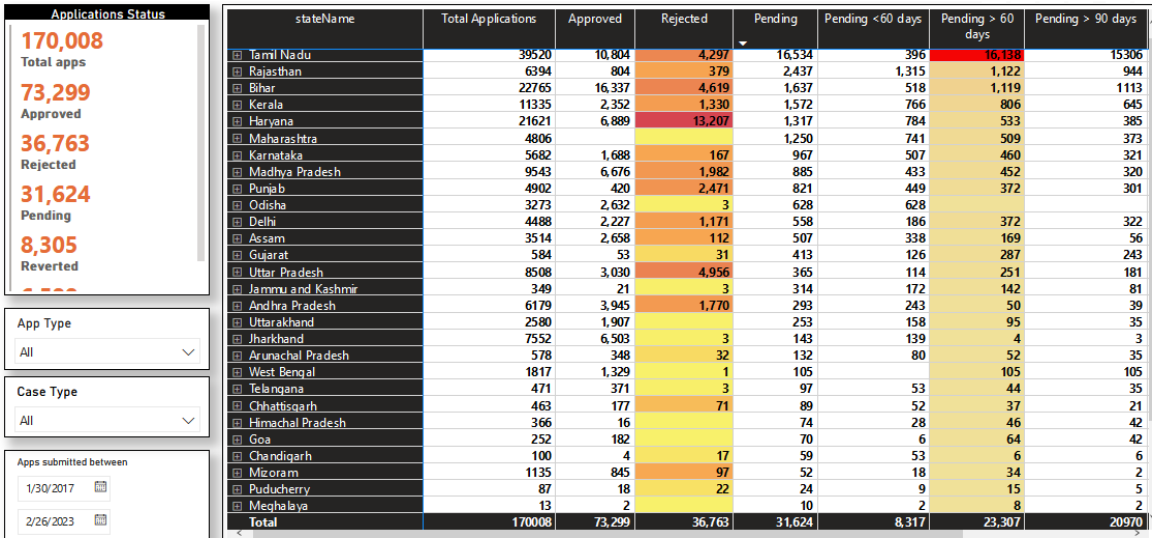


Figure 3.4: Overview of Status of Applications for States/ UTs

(Source: https://sugamsanchar.gov.in)

Apart from the overview of the status of applications for States/ UTs, the above Figure 3.4 also displays the top five States/ UTs in terms of number of applications received, applications approved, applications pending, applications rejected and applications pending for more than sixty days. Similar details of all the States/ UTs are also available in the dashboard as shown in Figure 3.5 below:



stateName	Total Applications	Approved	Rejected	Pending	Pending <60 days	Pending > 60 days	Pending > 90 days
Tamil Nadu	39520	10,804	4,297	16,534	396	16,138	15306
Rajasthan	6394	804	379	2,437	1,315	1,122	944
Bihar	22765	16,337	4,619	1,637	518	1,119	1113
Kerala	11335	2,352	1,330	1,572	766	806	645
Haryana	21621	6,889	13,207	1,317	784	533	385
Maharashtra	4806			1,250	741	509	373
Karnataka	5682	1,688	167	967	507	460	321
Madhya Pradesh	9543	6,676	1,982	885	433	452	320
Punjab	4902	420	2,471	821	449	372	301
Odisha	3273	2,632	3	628	628		
Delhi	4488	2,227	1,171	558	186	372	322
Assam	3514	2,658	112	507	338	169	56
Gujarat	584	53	31	413	126	287	243
Uttar Pradesh	8508	3,030	4,956	365	114	251	181
Jammu and Kashmir	349	21	3	314	172	142	81
Andhra Pradesh	6179	3,945	1,770	293	243	50	39
Uttarakhand	2580	1,907		253	158	95	35
Jharkhand	7552	6,503	3	143	139	4	3
Arunachal Pradesh	578	348	32	132	80	52	35
West Bengal	1817	1,329	1	105		105	105
Telangana	471	371	3	97	53	44	35
Chhattisgarh	463	177	71	89	52	37	21
Himachal Pradesh	366	16		74	28	46	42
Goa	252	182		70	6	64	42
Chandigarh	100	4	17	59	53	6	6
Mizoram	1135	845	97	52	18	34	2
Puducherry	87	18	22	24	9	15	5
Meghalaya	13	2		10	2	8	2
Total	170008	73,299	36,763	31,624	8,317	23,307	20970

Figure 3.5: Status of Applications for States/ UTs

(Source: https://sugamsanchar.gov.in)

Due to effective monitoring as a result of launch of the GatiShakti Sanchar portal, the monthly average number of days to dispose the applications has substantially reduced from about 208 days in July, 2021 to around 8 days in February, 2023. Similarly, the yearly average number of days to dispose the applications has also reduced from about 514 days in 2019 to around 18 days in 2023 as reflected in the Figure 3.6 below:

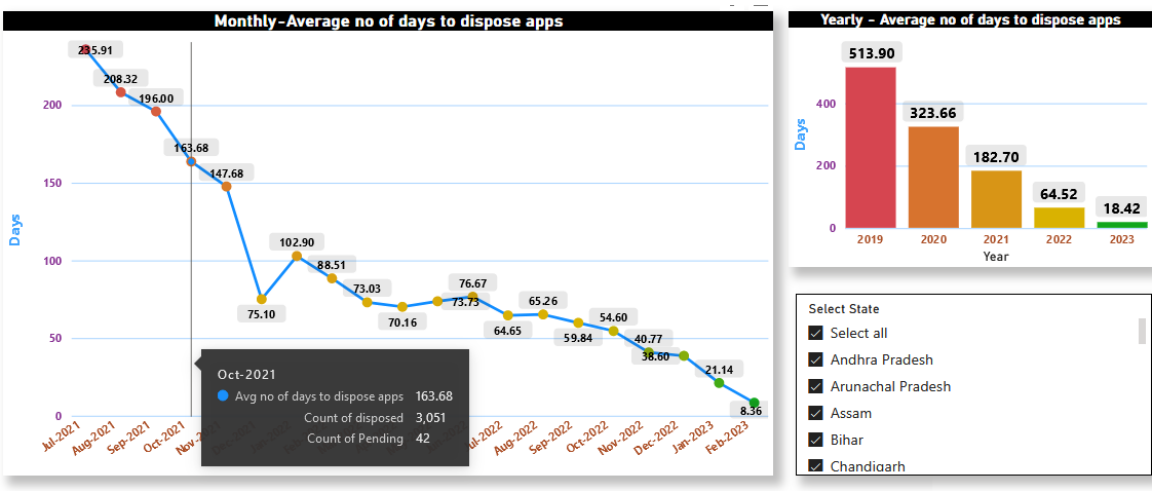


Figure 3.6: Average Number of Days to Dispose Applications

(Source: https://sugamsanchar.gov.in)

The GatiShakti Sanchar portal also provides the disposal time analysis by listing the States/ UTs in the order of average number of days taken to dispose the applications as shown in Figure 3.7 below:

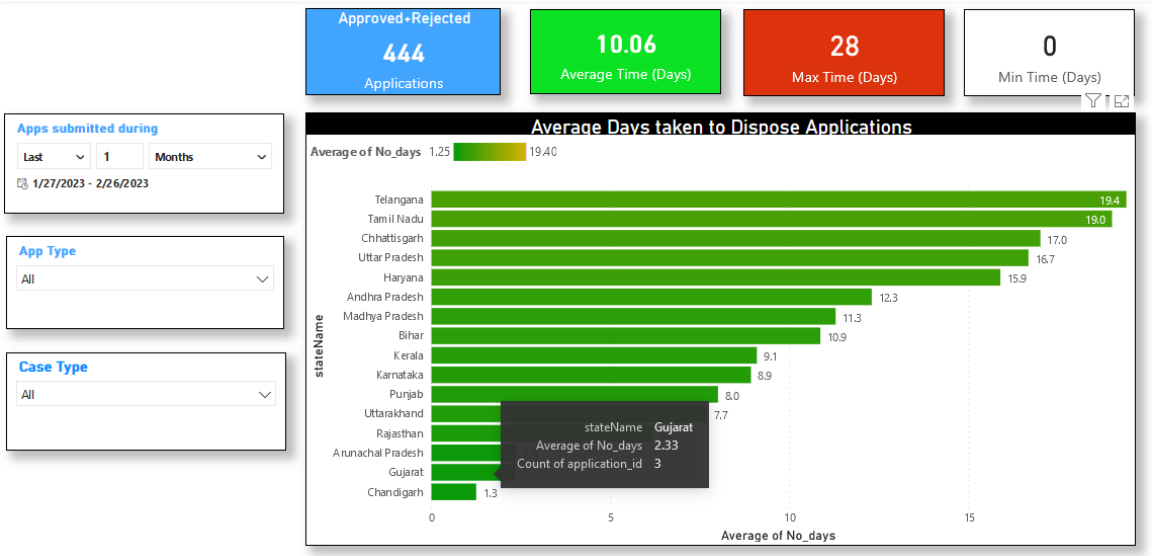


Figure 3.7: Listing of States/ UTs in Order of Average Number of Days

(Source: https://sugamsanchar.gov.in)

The portal provides monthly break up of applications handled which displays the trend of rejection of applications in addition to those approved as shown in Figure 3.8 below:

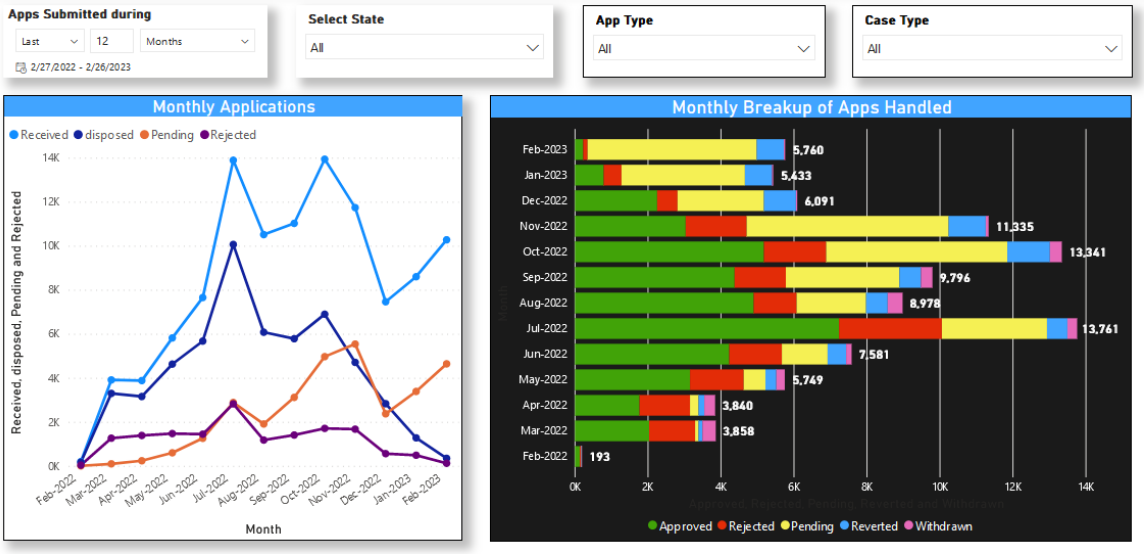


Figure 3.8: Monthly Break Up of Applications

(Source: https://sugamsanchar.gov.in)

The distribution of type of application i.e. Ground Based Tower (GBT), Roof Top Tower (RTT) , Right of Way (RoW) etc. is also available in the portal as shown in Figure 3.9 below:

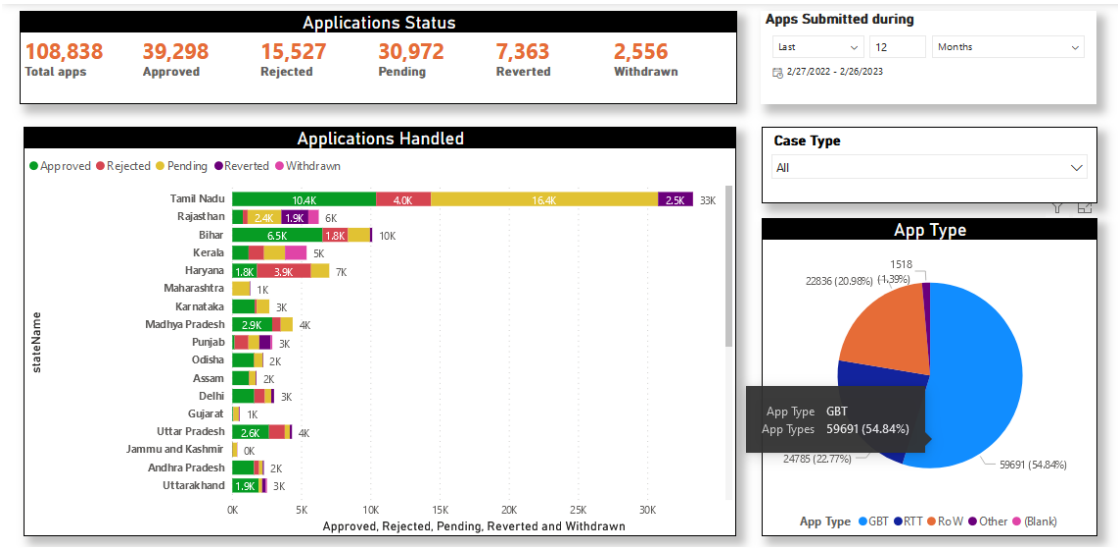


Figure 3.9: Break Up of Type of Applications

(Source: https://sugamsanchar.gov.in)

The GatiShakti Sanchar portal also exhibits the variation of tower charges and Right of Way (RoW) charges across different States/ UTs as shown below in Figures 3.10 and 3.11 respectively:

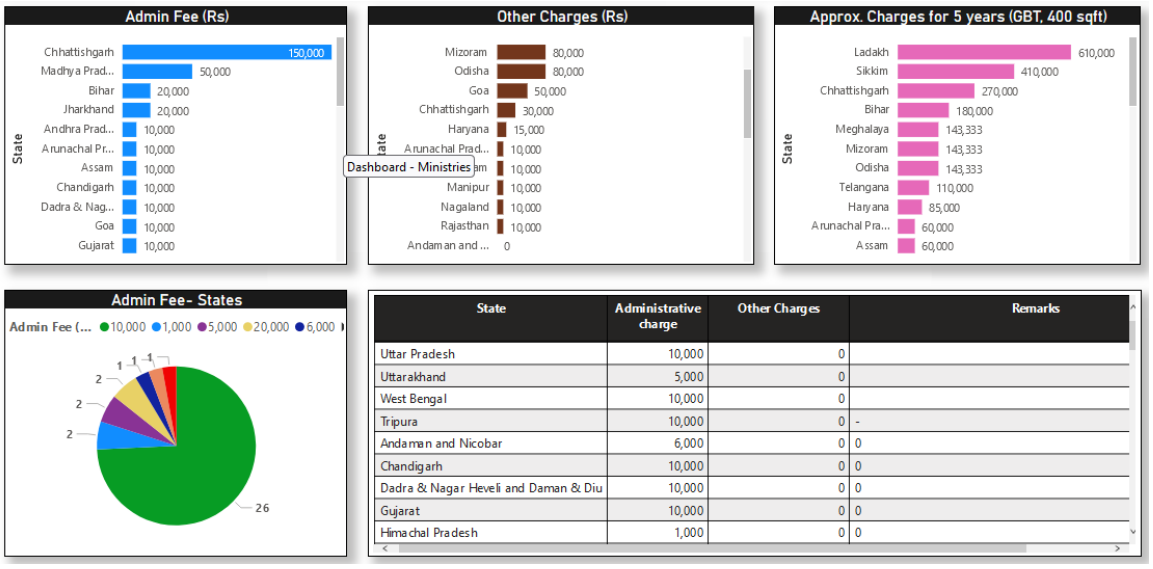


Figure 3.10: Tower Charges

(Source: https://sugamsanchar.gov.in)

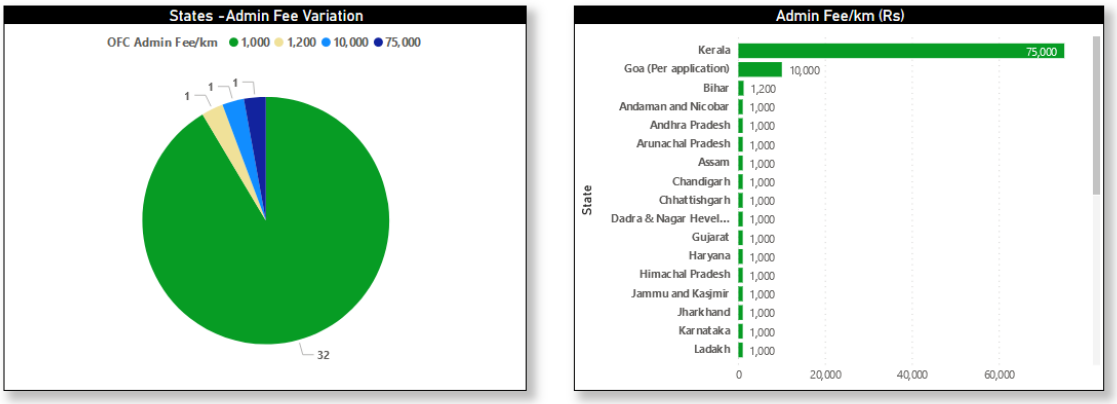


Figure 3.11: RoW Charges

(Source: https://sugamsanchar.gov.in)

Similar reports have also been provisioned in the GatiShakti Sanchar portal for various Ministries/ Departments. A detailed report of the status of applications across various States/ UTs as on 26th February, 2023 is attached at Appendix-H.

3.5 Digital Communications Readiness Index (DCRI)

Since telecommunications is increasingly becoming central in the delivery of citizen centric services, a Digital Communications Readiness Index (DCRI) framework has been introduced by Department of Telecommunications (DoT) to measure and rank the performance of States/UTs on the basis of their regulatory environment and policies with respect to digital communications infrastructure (DoT, 2022). Such a framework will go a long way in promoting the spirit of competitive federalism amongst States/UTs and encourage them to learn from each other by emulating the forward looking policies along with the best practices.

The indicators of Digital Communications Readiness Index (DCRI) have been grouped under two pillars as follows:

(a) State led initiatives

(b) Outcomes that measure impact of State initiatives

Under these two pillars, eleven sub pillars have been identified as follows:

i) Policy for Right of Way (RoW)

ii) Policy for Shared Duct Infrastructure

iii) Policy for Building Codes

iv) 5G Rollout

v) Telecom Skilling

vi) Infrastructure Support to Telecom

vii) Other State Policies Facilitating Telecom Sector

viii) Institutional Access to Broadband

ix) ICT Use

x) Status of Telecom Indicators in the State

xi) BharatNet

The framework of the Digital Communications Readiness Index (DCRI) along with its constituent pillars and sub pillars is shown in the form of diagram in Figure 3.12 below:

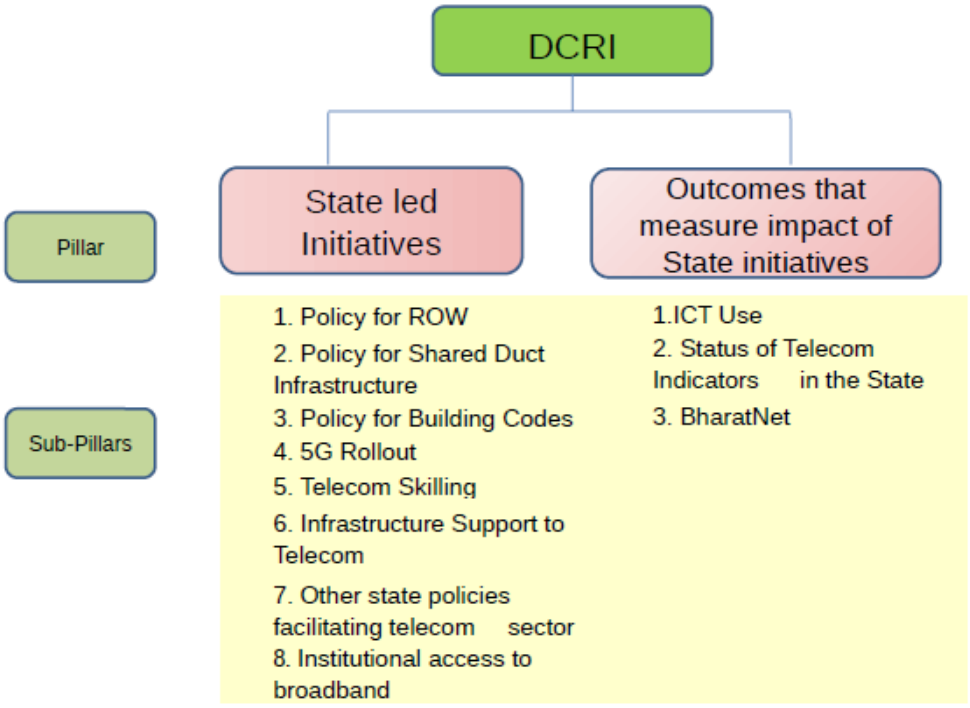


Figure 3.12: Digital Communications Readiness Index (DCRI)

(Source: https://sugamsanchar.gov.in)

There are a total of seventy three questions / indicators in the Digital Communications Readiness Index (DCRI). In order to enable States/ UTs to spruce up, a preparatory time up to 31st March, 2023 and thereafter one full year (April, 2023 to March, 2024) has been provided to States/ UTs to implement the enabling policies as per the constituents of the framework. Accordingly, the evaluation exercise shall begin from

April, 2024 onwards based on the achievements of the States/UTs in 2023-24. The Digital Communications Readiness Index (DCRI) will provide useful insights into the regulatory environment, condition of the underlying digital communications infrastructure and associated factors at the level of States/UTs. The relative strengths and weaknesses of various States/UTs as reflected in their Digital Communications Readiness Index (DCRI) will act as valuable inputs in evidence based policy formulation and further improvements in Indian Telegraph Right of Way Rules, 2016.

Chapter 4: Research Findings

4.1 Approach

The mixed research strategy methods have been used in the research involving a combination of theoretical and empirical methods. The employment of content analysis and field survey approach has been done. The data sources used in the research are mainly secondary in nature gathered from:

- Various academic journals, periodicals and reports
- Policy documents and publications of Government of India
- Department of Telecommunications (DoT)
- International Telecommunications Union (ITU)
- Global System for Mobile Communications Association (GSMA)
- Telecom Regulatory Authority of India (TRAI)
- Telecommunication Engineering Centre (TEC)

As far as the collection of primary data is concerned, a questionnaire in the shape of Google form was designed for survey. The data has been collected through the questionnaire and also through interaction with officials from:

- Department of Telecommunications (DoT)
- Telecom Regulatory Authority of India (TRAI)
- Telecommunication Engineering Centre (TEC)
- Telecom Service Providers (TSPs)
- Infrastructure Providers (IPs)

- Global System for Mobile Communications Association (GSMA)
- Digital Infrastructure Providers Association (DIPA)
- Cellular Operators Association of India (COAI)

4.2 Field Survey

In addition to the introductory details, the questionnaire contained eighteen questions about various aspects and provisions of Indian Telegraph Right of Way Rules, 2016. It was clarified in the form of a note in the questionnaire that for the purpose of survey, the Indian Telegraph Right of Way Rules, 2016 mean Indian Telegraph Right of Way Rules, 2016 as amended from time to time. The questionnaire is attached as Appendix-I. The responses received from various stakeholders numbered around one hundred three.

In response to the question whether the Indian Telegraph Right of Way Rules, 2016 have provided an enabling regulatory framework to obtain Right of Way (RoW) permission for establishment of telecommunication infrastructure, almost all (97%) respondents have agreed to it as shown in Figure 4.1 below:

Responses to Enabling Regulatory Framework for Right of Way (RoW)

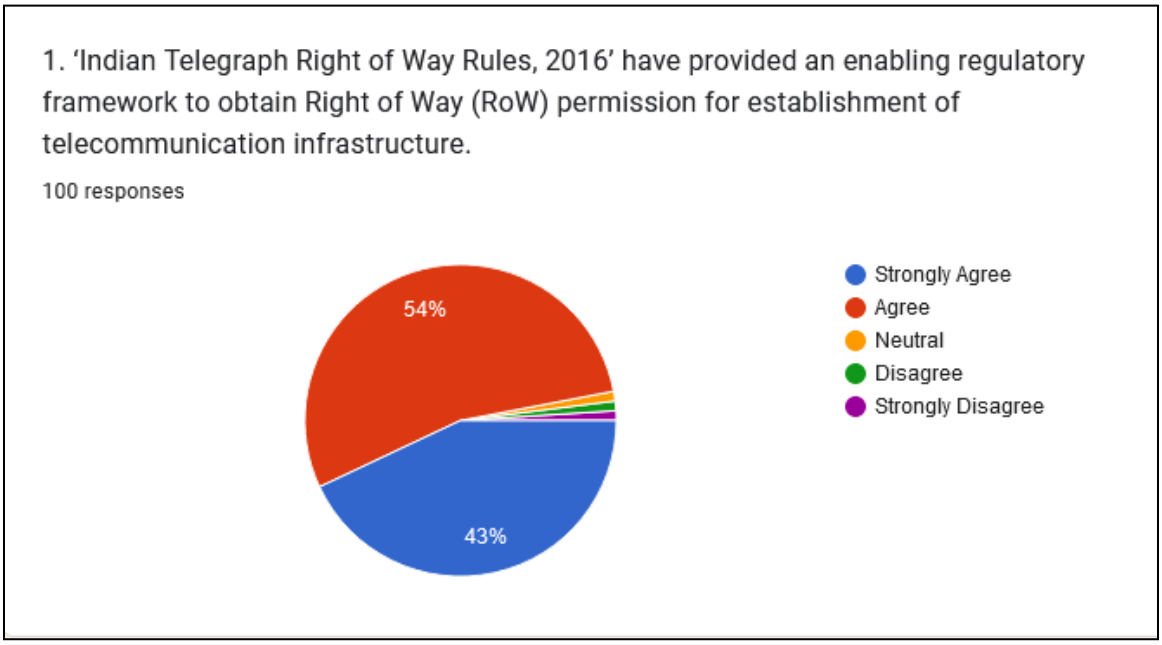


Figure 4.1: Response to Question 1

At the same time, majority (70%) of the respondents have agreed that there are still certain shortcomings in the Indian Telegraph Right of Way Rules, 2016 that need to be addressed to make them more effective as displayed in Figure 4.2 below:

Responses to Shortcomings in Indian Telegraph Right of Way Rules, 2016

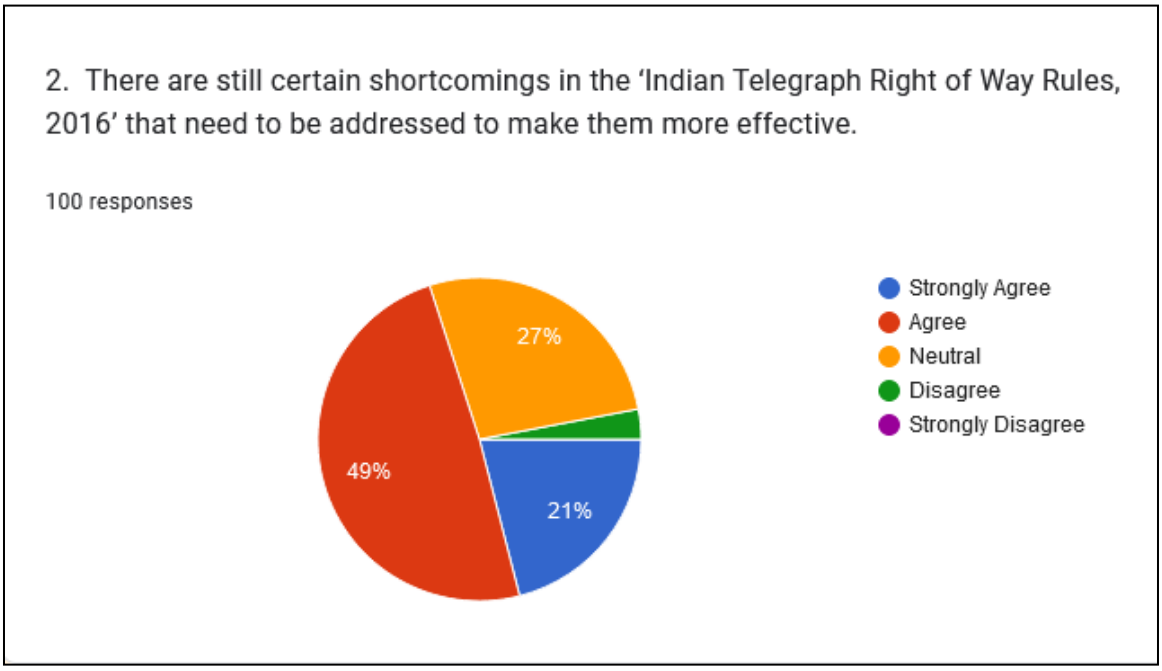


Figure 4.2: Response to Question 2

About 78% of the respondents opine that the fee to meet administrative expenses for examination of the application for Right of Way (RoW) permission by the appropriate authority as per provisions of Indian Telegraph Right of Way Rules, 2016 is reasonable and just. The percentage of respondents which chose to disagree or remain neutral is 22%. The same is clear from the Figure 4.3 below:

Responses to Administrative Expenses Fee

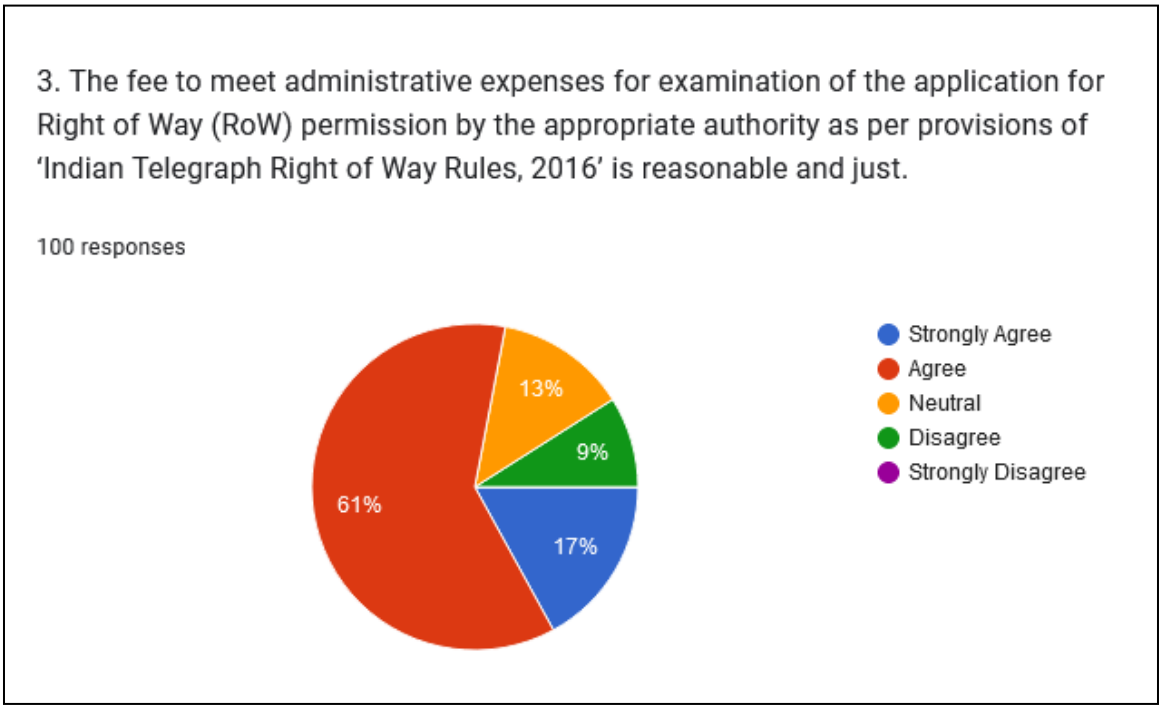


Figure 4.3: Response to Question 3

As far as the charges for restoration in case of establishment of underground telegraph infrastructure where the licensee does not undertake to restore the damages as per provisions of Indian Telegraph Right of Way Rules, 2016 are concerned, about 69% of the respondents are of the view that they are reasonable and just. However, around 31% have disagreed or remained neutral about the charges. There is no one who has 'Strongly Disagreed' as evident from Figure 4.4 below:

Responses to Charges for Restoration (Underground Infrastructure)

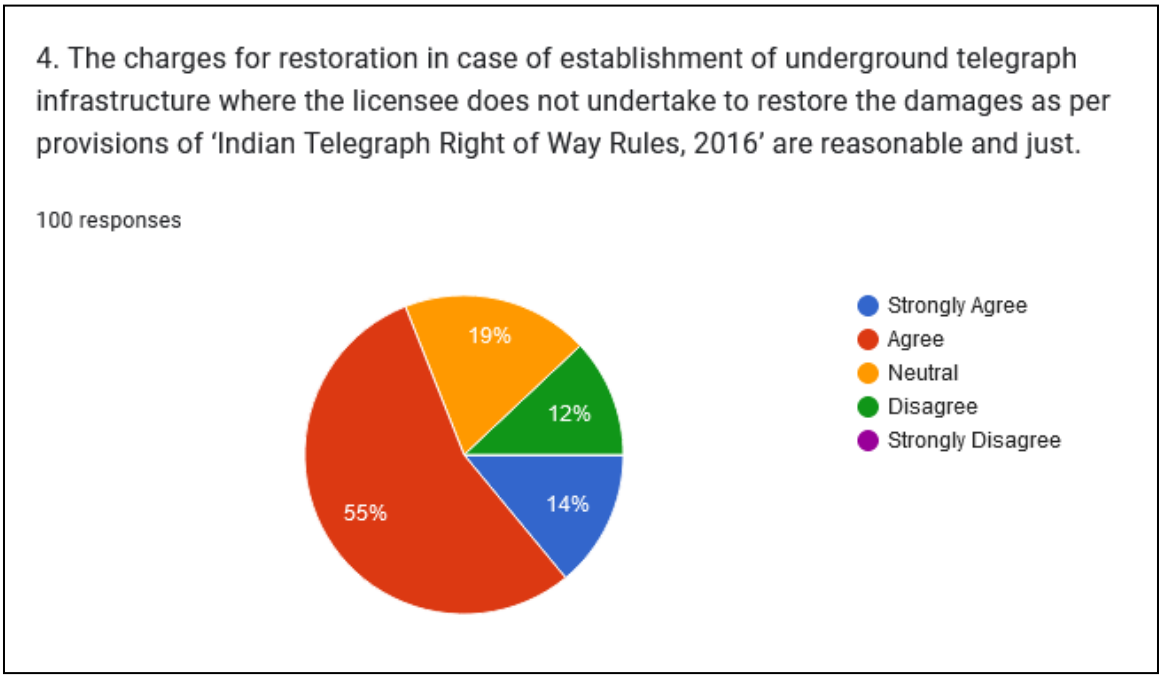


Figure 4.4: Response to Question 4

In case of the viewpoint regarding the justness of the amount of bank guarantee as performance security in case of establishment of underground telegraph infrastructure where the licensee undertakes to restore the damages as per provisions of Indian Telegraph Right of Way Rules, 2016, about 73% of the respondents feel that it is reasonable while around 27% opine to disagree with it or remain neutral. There is no one who has 'Strongly Disagreed' as evident from Figure 4.5 below:

Responses to Amount of Bank Guarantee (Underground Infrastructure)

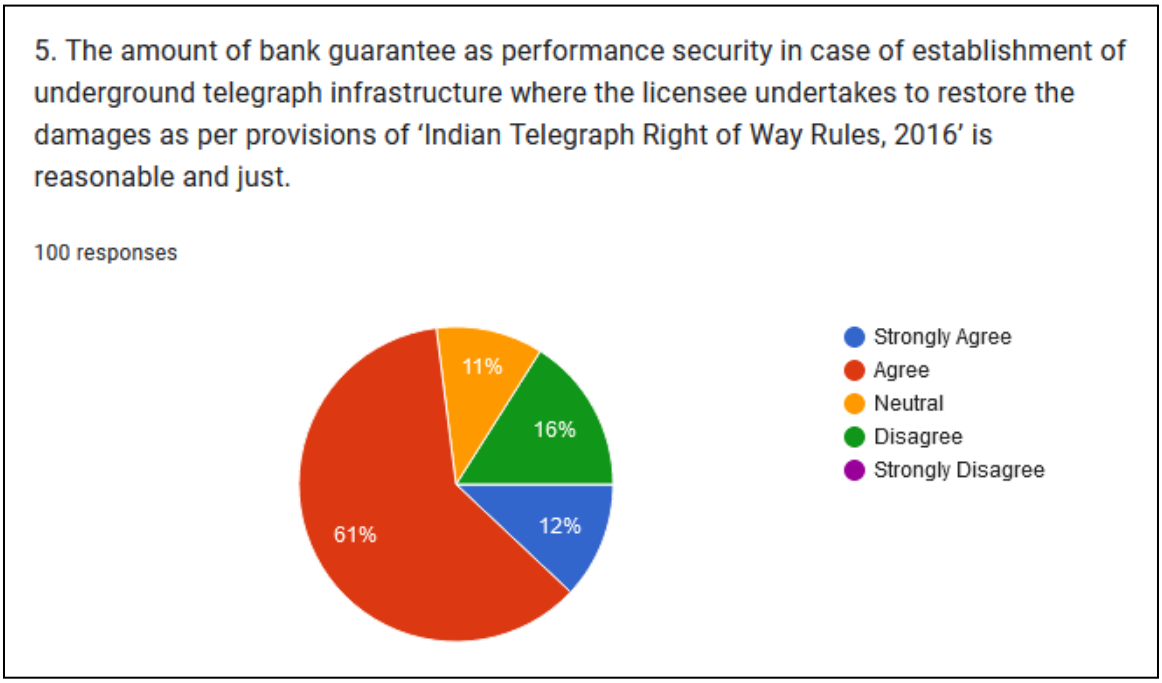


Figure 4.5: Response to Question 5

About 69% of the respondents have expressed the view that the charges for restoration in case of establishment of overground telegraph infrastructure as per provisions of Indian Telegraph Right of Way Rules, 2016 are rational and just. However, around 30% disagree with it or remain neutral. There are 1% who 'Strongly Disagree' as clear from Figure 4.6 below:

Responses to Charges for Restoration (Overground Infrastructure)

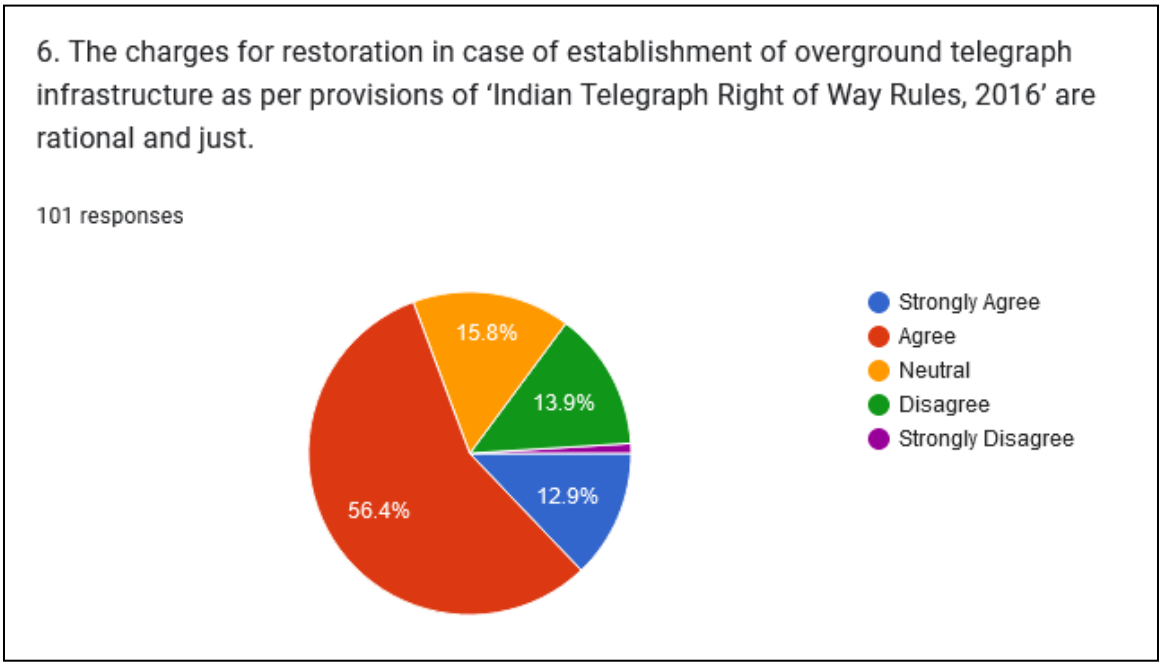


Figure 4.6: Response to Question 6

About 60% of the respondents view the charges for compensation in case where the establishment of the overground telegraph infrastructure renders the immoveable property unlikely to be used for any other purpose as per provisions of Indian Telegraph Right of Way Rules, 2016 as reasonable and just. Approximately 37% disagree with it or remain neutral while 3% respondents 'Strongly Disagree' with it as shown in from Figure 4.7 below:

Responses to Charges for Compensation (Overground Infrastructure)

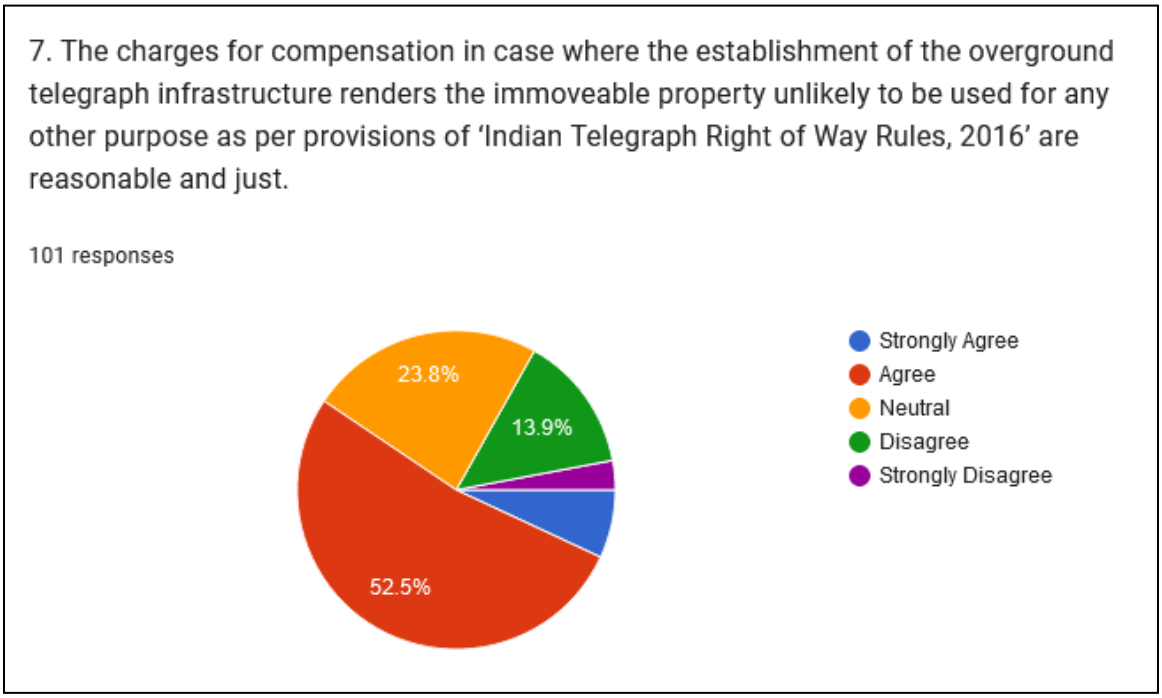


Figure 4.7: Response to Question 7

The dispute resolution mechanism as per provisions of Indian Telegraph Right of Way Rules, 2016 is fair and effective according to 65% of the respondents while 34% disagree with it or remain neutral. About 1% of the respondents 'Strongly Disagree' with it as shown in Figure 4.8 below:

Responses to Dispute Resolution Mechanism

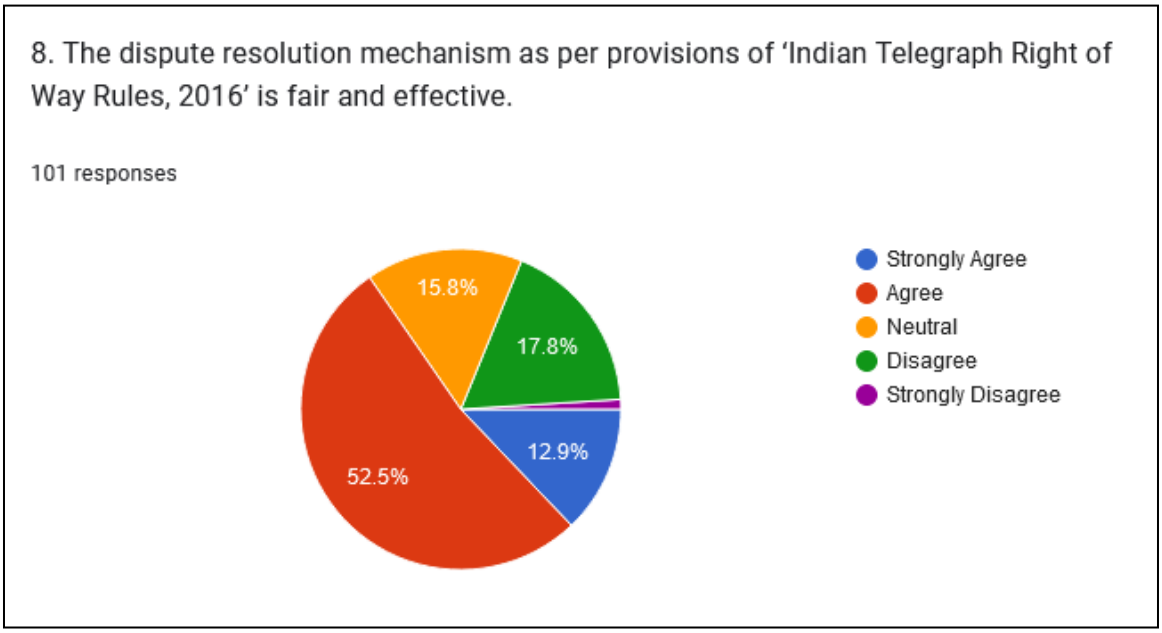


Figure 4.8: Response to Question 8

As per provisions of Indian Telegraph Right of Way Rules, 2016, in case the appropriate authority seeks removal of underground or overground telegraph infrastructure, the cost of removal or alteration of such telegraph infrastructure shall be borne by the licensee. About 72% of the respondents have opined that in order to improve ease of doing business, the appropriate authority should bear part of the cost while about 17% have expressed their disagreement as visible from the Figure 4.9 below:

Responses to Authority Bearing Part of Cost of Removal of Infrastructure

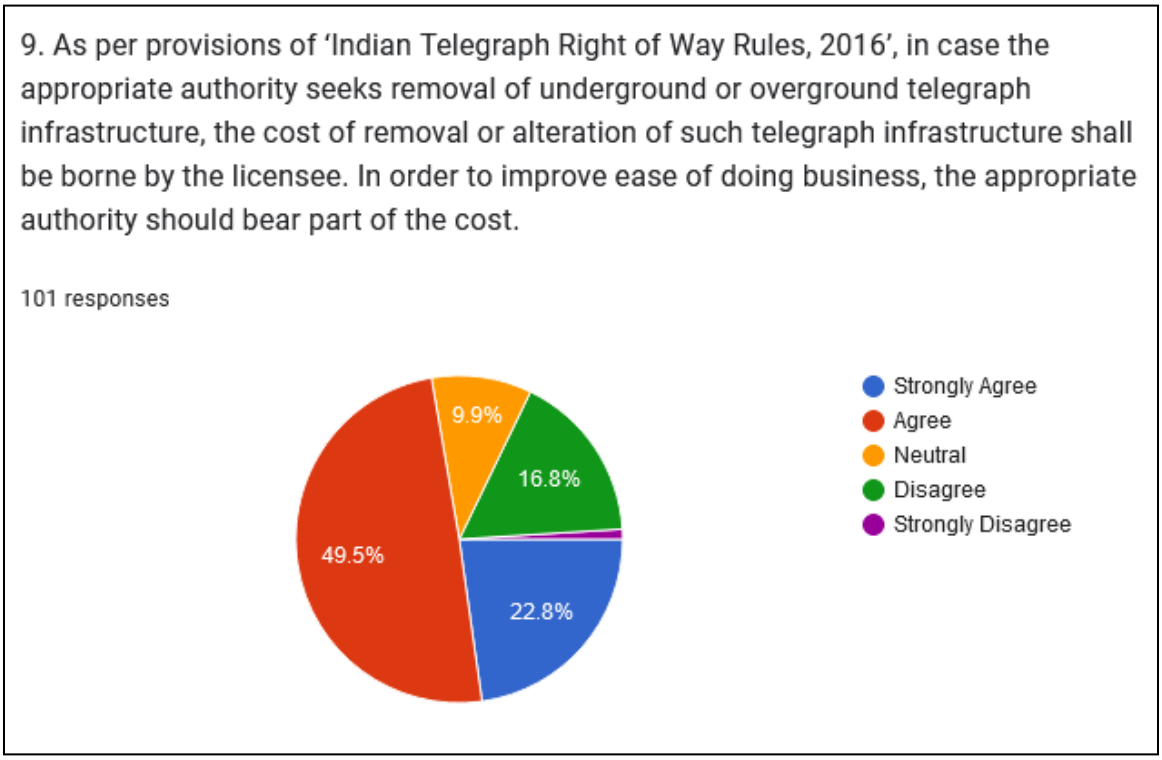


Figure 4.9: Response to Question 9

A large majority of the respondents (86%) believe that the provision of Indian Telegraph Right of Way Rules, 2016 regarding deemed approval in case the appropriate authority fails to take decision within specified time has led to reduction in delays in approvals. However, about 12% disagree with it or remain neutral. There are 2% of the respondents who 'Strongly Disagree' with it as shown in Figure 4.10 below:

Responses to Deemed Approval

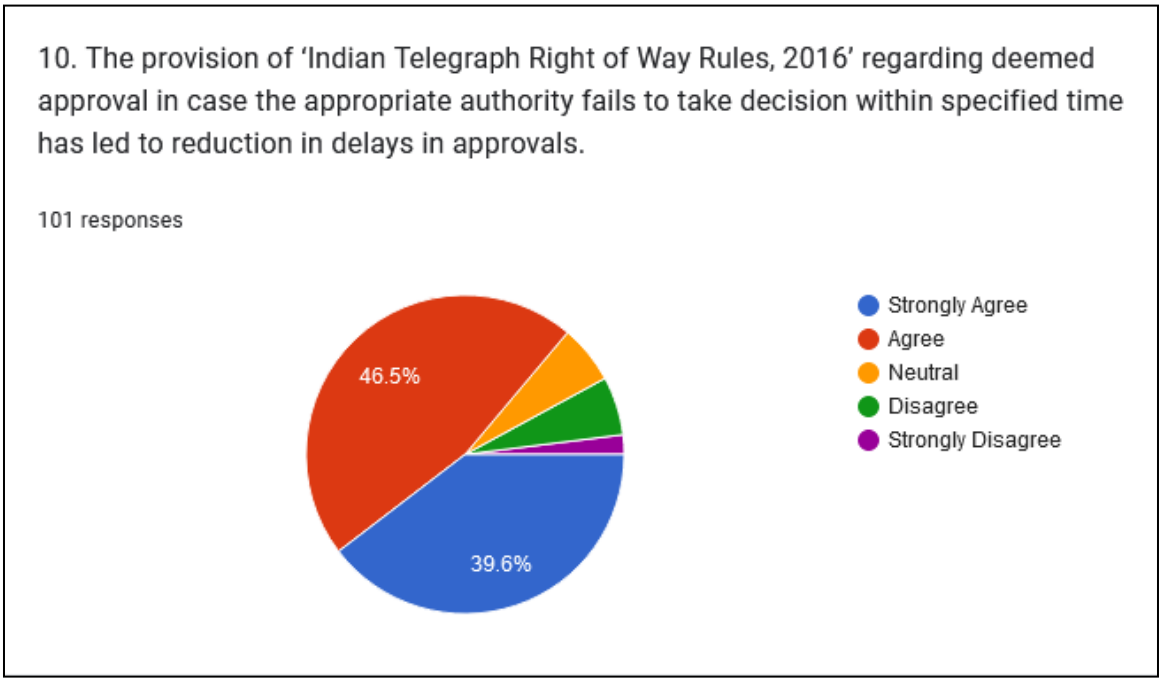


Figure 4.10: Response to Question 10

As per provisions of Indian Telegraph Right of Way Rules, 2016 the appropriate authority shall take decision on the application for establishment of telegraph infrastructure within a period not exceeding sixty days. In order to facilitate early roll out of telecom services, about 70% of the respondents feel the need for this period to be reduced while 29% disagree with it or remain neutral. About 1% of the respondents 'Strongly Disagree' with it as shown in Figure 4.11 below:

Responses to Time Period for Decision

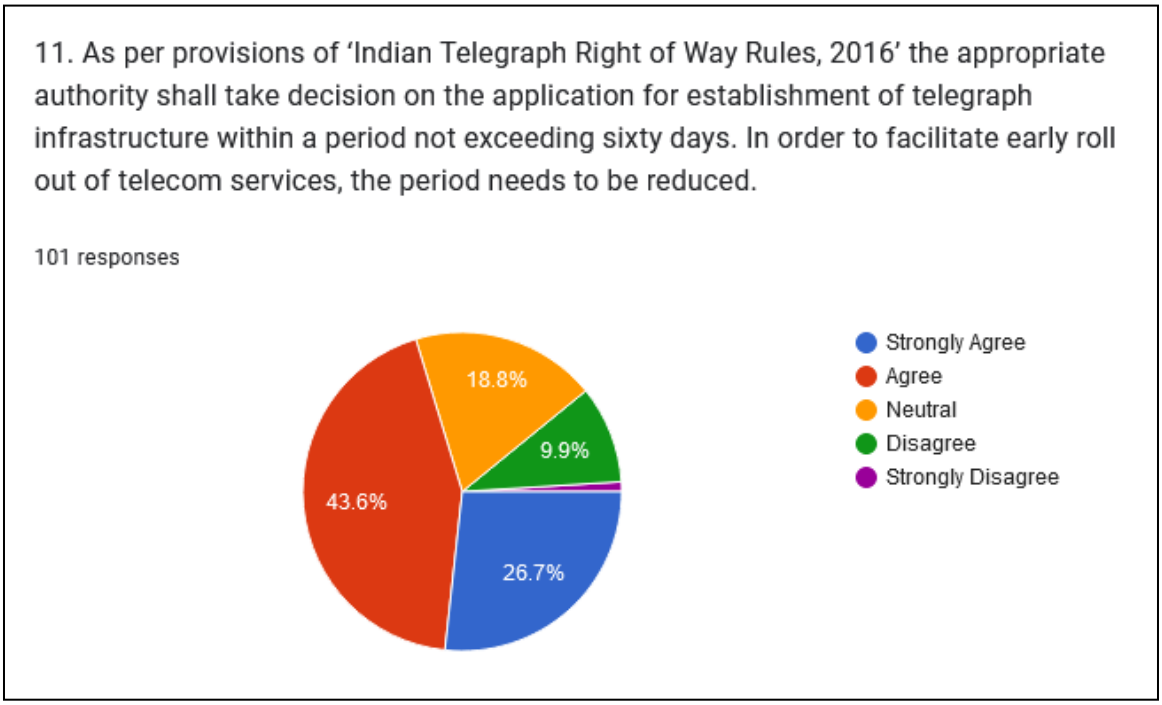


Figure 4.11: Response to Question 11

Approximately 76% of the respondents are of the belief that the GatiShakti Sanchar portal has led to major reduction in average time for approval of RoW applications while 23% disagree with it or remain neutral. About 1% of the respondents 'Strongly Disagree' with it as shown in Figure 4.12 below:

Responses to Reduction in Approval Time Due to GatiShakti Portal

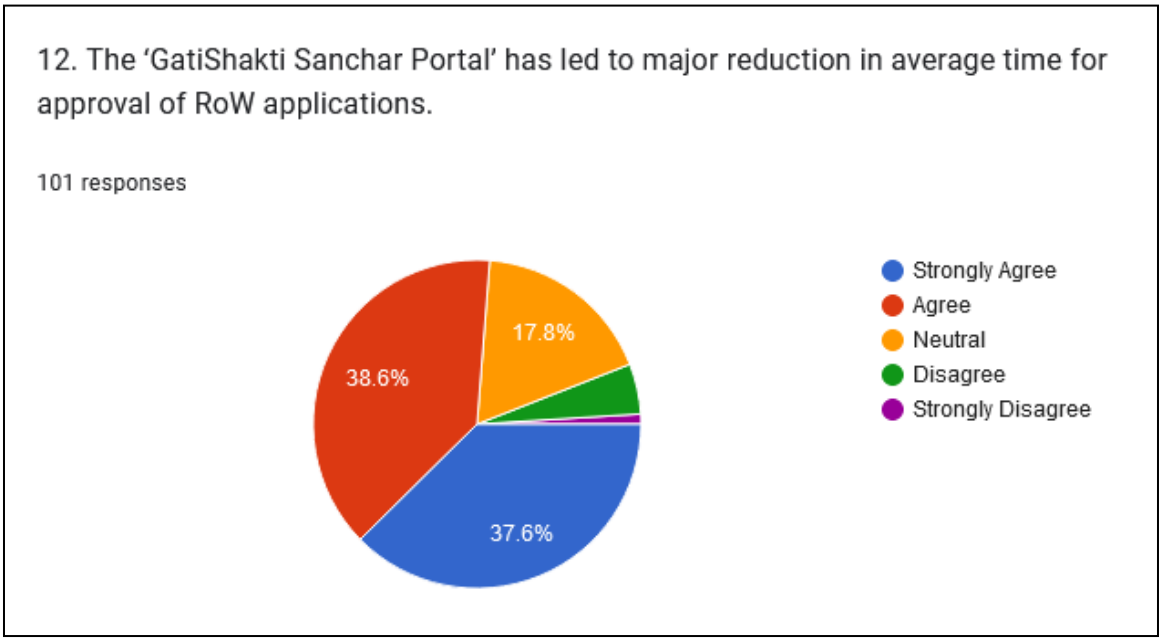


Figure 4.12: Response to Question 12

About 66% of the respondents feel that the Indian Telegraph Right of Way Rules, 2016 have sufficient provisions to take care of roll out of 5G services especially the Small Cells while 34% disagree with it or remain neutral as shown in Figure 4.13 below:

Responses to Provisions for 5G Rollout

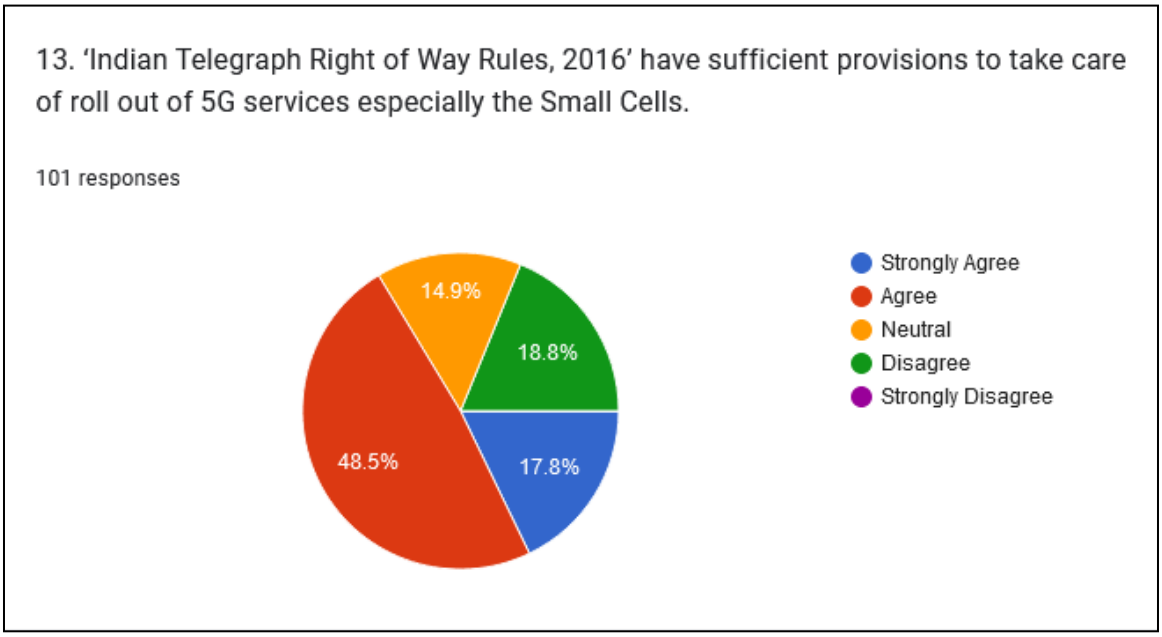


Figure 4.13: Response to Question 13

Around 80% of the respondents are of the opinion that the methodology prescribed in Indian Telegraph Right of Way Rules, 2016 to calculate the area occupied by telecom infrastructure has brought uniformity in computation of area and associated charges for the telecom infrastructure across the country. However, about 20% feel otherwise or have chosen to remain neutral as shown in Figure 4.14 below:

Responses to Methodology to Calculate Area

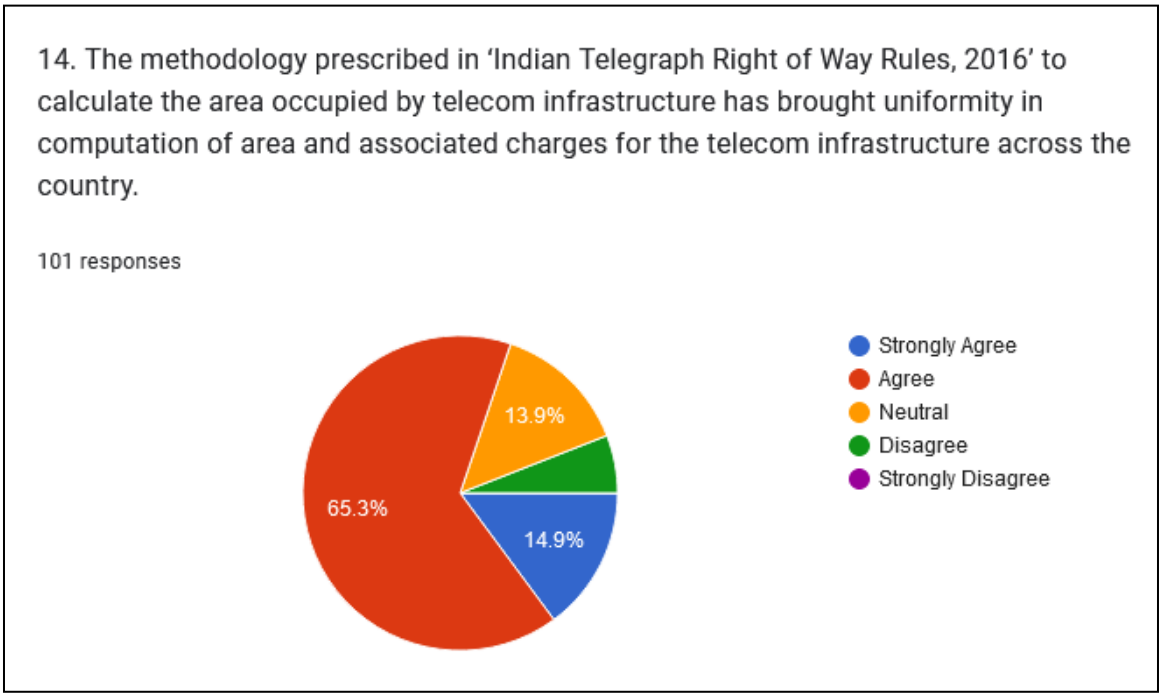


Figure 4.14: Response to Question 14

Responses to Issues Related to Right of Way (RoW) Permission:

The respondents were requested to specify issues related to Right of Way (RoW) permission for establishment of telecommunication infrastructure that have not been envisaged / adequately covered in the Indian Telegraph Right of Way Rules, 2016. The main responses received are as under:

i. *States and local bodies are still not aligned*

ii. *Agencies on behalf of TSPs should be permitted to apply for RoW*

iii. *Legal backing for timely permission should be there*

iv. *Restoration charges are high at some places making it difficult to rollout the services*

v. *Periodic consultations with stakeholders must be held to identify issues and address them*

vi. *There should be one duct policy*

vii. *Local authorities don't accept deemed approvals*

viii. *No compensation should be charged for underground optical fibre cable by Central Government Ministries and Departments*

ix. *Enforceability of State RoW policy through legal backing is required so that local bodies follow them in letter and spirit.*

x. *Regular training sessions required for awareness and sensitization of authorities responsible for granting permissions especially local bodies. RoW permissions should not be looked upon as source of revenue. It should rather be treated as facilitation of socio-economic development of the area.*

xi. *Mandatory provision of duct for utility services in populated areas and along all types of roads, bridges, flyover etc. required.*

xii. *Issue of enforceability of the RoW rules over Central Government agencies needs to be seen*

xiii. *Equal participation and ownership of State Government required*

xiv. *Dispute resolution authority still not established in States. An authority like bank ombudsman should be established at all State headquarters.*

xv. *There is no provision for regularization of existing infrastructure installed*

xvi. *RoW permissions in respect of railways, forest areas and defence land must be made easy.*

xvii. *There is no uniformity in charges across Central Government Departments. Various Government PSUs and agencies like DMRC, Railways, MoRTH yet to fully align to RoW Rules of DoT.*

xviii. *All Ministries from where NOC required should be on board*

xix. *The grounds for rejection of application should also be prescribed in the rule itself and no authority should be allowed to reject the application on any other ground.*

xx. *Bye-laws of local authorities need to be looked into. It is seen that local authorities are taking recourse to their bye-laws while levying charges for overground and underground charges. Perhaps there may be some revenue generation dimension in it.*

xxi. *Application should process within 30 days instead of 60 days.*

xxii. *The Rules do not provide for remedial framework if the deemed approval condition is not honoured by approving authority.*

xxiii. *RoW charges for vital infrastructure like Telecom should be free (i.e. only nominal restoration charges, without profiteering) as it leads to development of that area.*

xxiv. *The RoW Rules 2016 are still not followed in letter and spirit in all States. Small cells / street furniture / pole charges are not uniform.*

Responses to Amendments in the Existing Provisions of RoW Rules:

The respondents were requested to specify the amendments / changes/ modifications in the existing provisions that are required to make Indian Telegraph Right of Way Rules, 2016 more effective. The summary of responses received is as follows:

i. *RoW Authority may be created to lay utility ducts along the roads for use of TSPs on annual renting basis. Where ducts are available, no RoW should be granted for laying fresh cables.*
ii. *Rejection of application should be the exception rather than the norm.*
iii. *Deemed approval for RoW should be released by website digitally. There is no provision for regularization of pending and existing RoW cases in 2016 Rules.*
iv. *RoW should be part of an Act and should be having overriding effect with respect to RoW rules of other agencies like Railways, Forest etc. (and also States)*
v. *Concerned authorities may be apprised and educated regarding the salient provisions of the RoW Rules*
vi. *Uniform charges across all Ministries/Departments should be there*
vii. *Application should be processed within 30 days instead of 60 days.*
viii. *Fee for rural area shall be less compared to that for urban areas.*
ix. *There should be provision of damage claim if any one damages the telecom infrastructure.*
x. *Legal backing of timely permission along with penalty provision for delay in giving permission should be there.*

xi. *BSNL doing national interest project should be given outright RoW permission. As per RoW request of BSNL, study should be done by NHAI and RoW permission should be issued with desired safety instructions without BG formalities.*

xii. *60 days period for deemed approval is on higher side.*

xiii. *Monitoring of rejection of permission should be done by committee of experts and safety of towers should be ensured though local police*

xiv. *Making the system more autonomous with zero human to human interactions*

xv. *Common pool money from all service providers should be utilized to make ducts*

xvi. *RoW charges should be nominal and paid by Central Government to State Government for speedy work*

xvii. *The RoW rules should have legal backing to ensure implementation by all States and Municipalities*

xviii. *The Right of Way issue is being dealt mainly by State Governments, the RoW Rules needs to have enough force to coerce or incentivize the State Governments to align their priorities and treat it as important infrastructure work similar to those handled directly by the States.*

xix. *It is seen that disparate development activities lead major disruption in services. A coordinated mechanism across all utility service providers need to be put in place to ensure coordinated development efforts with minimal disruption in service.*

Responses to Make the 'GatiShakti Sanchar Portal' More Effective:

The respondents were requested to suggest the measures to make the 'GatiShakti Sanchar Portal' more effective. The main responses received are as under:

i. *GIS mapping of existing telecom infrastructure (OFC, Towers etc.) and street furniture required.*
ii. *Ranking of States/ Local Bodies will help in improving the efficiency*
iii. *To make the 'Gati Shakti Sanchar Portal' more effective, there should be provision for written deemed approval, it should be in sync with Electricity/DISCOM portals to apply for the deployment of Digital Infrastructure on LT Poles and for application of smart meters, etc.*
iv. *Provision for regularization of existing sites should be there on the portal*
v. *More and more data of development authority should be made available in the portal*
vi. *Need to sensitize State Government bodies about the portal.*
vii. *Make the system more autonomous with zero human to human interactions*
viii. *Provision should be made so that there is no communication between applicant and authorities out of the portal*
ix. *More and more publicity should be there of GatiShakti portal among the officials of State Government. Capacity building/training of State Government officials about the portal will enhance the speed of awarding of RoW*
x. *Details of land pool for towers at reasonable rate should be made available on the portal*
xi. *It's should be interlinked with State municipal authorities for seamless approval*

xii. *Maps may be incorporated to indicate the area where permission is desired*

xiii. *Key stakeholders like MoHUA, MeitY and State Urban Local Bodies (ULBs) which are driving smart cities and other key infra projects are missing.*

xiv. *Infrastructure mapping on national portal will help optimum utilisation*

Responses to 'Other Inputs':

In addition, the respondents have provided the following responses under 'Other Inputs':

i. *The aid to States by Central fund should be linked with performance on the RoW permission.*

ii. *Periodic workshops at national level need to be conducted to improve cooperation between stakeholders.*

iii. *Telecom has become the core of all the core infrastructure sectors. This needs to be appreciated by all the stakeholders and process the cases related to telecom development projects on top priority.*

iv. *For better synergy, time to time interaction through meetings or trainings between DoT officers and State Government authorities, Railways, NHAI, PWD, CPWD, Forest (both Central & State), DISCOMS, Electricity Regulators, Judiciary and other stake holders must be done very frequently.*

v. *Training to all stakeholders on RoW rules and GatiShakti Sanchar portal may be given.*

vi. *There is a critical need to develop common infra like OFC ducts, Street and In-Building passive infrastructure which can be further leased out to different TSPs and IPs for additional revenue generation to ULBs who are severely deprived of*

funds. It would also minimise disruption and damage to the existing infra multiple times by different operators.

4.3 Exemplary Initiatives by States

Although the Right of Way (RoW) rules of a large number of States/UTs are not aligned *in toto* with the Indian Telegraph Right of Way Rules, 2016 as amended from time to time, there have been many instances where the States have undertaken exemplary initiatives to facilitate Right of Way (RoW) permissions (DoT, 2022). In recognition of telecom service as essential for socio-economic development, Kerala decided that Government land & buildings would be made available at cheaper rates in rural areas for deployment of telecommunications infrastructure. Maharashtra has the distinction of being the first State to offer electricity tariff for provision of telecommunication services at industrial rates to promote growth and development. The online portal of West Bengal has dashboard up to Gram Panchyat level which leads to effective monitoring and increased efficiency. It holds meetings at district level frequently to reduce pendency and redressal of grievances. Further, it has mandated laying of optical fiber cable only through Horizontal Directional Digging (HDD) method.

Punjab has launched a policy of regularization of all existing towers by payment of one time nominal settlement charges. Similarly, Manipur has offered one time relaxation in the documents that are required to be submitted for regularization of existing towers. Meghalaya undertook a drive to grant permission under deemed approval clause of the Right of Way (RoW) rules. Besides, Himachal Pradesh, Rajasthan, Bihar

Odisha, Haryana, Assam, Jharkhand, West Bengal and Uttar Pradesh have launched initiatives to grant deemed approval in an automatic way for permissions to install towers after the lapse of timeline of sixty days.

The States of Assam, Mizoram and Arunachal Pradesh undertook a drive to grant one time deemed approval for all offline Right of Way (RoW) applications subject to the condition that the Telecom Service Providers (TSPs) produce the receipt of fee payment. Madhya Pradesh took lead in the process to digitize the application process and became the first State to launch the online portal for Right of Way (RoW) permissions. In order to ensure security of existing telecommunications infrastructure, Bihar, Odisha, Tamil Nadu, Meghalaya, Assam, Manipur and Jharkhand have issued directions to district authorities to ensure safety of telecommunications infrastructure in their respective jurisdictions. To prevent damage to existing telecommunications infrastructure, Telangana launched a Whatsapp Group regarding 'Call Before you Dig' for the benefit of stakeholders.

The State of Madhya Pradesh has taken exemplary initiative to expedite Right of Way (RoW) permissions regarding installation of telecommunication infrastructure on forest land. The issue of delay in obtaining RoW permissions in forest area is a pain point that is common to almost all States / UTs. The Telecom Service Providers (TSPs) need to apply to the office of District Collector instead of Forest Department after survey and identification of the land required. Thereafter, the application after examination by the office of District Collector is sent to the Forest Department and followed up for expeditious decision which is then conveyed to the TSP by the office of District Collector. This has led to reduction of delays considerably.

4.4 Issues and Challenges

The Indian Telegraph Right of Way Rules, 2016 have indeed come a long way ever since they were notified by the Union Government on 15th November, 2016. They have been instrumental in creating an enabling regulatory framework to obtain Right of Way (RoW) permission for establishment of telecommunication infrastructure as well as streamlining the process of Right of Way (RoW) approvals for laying down of cables (underground) and setting up of telecom towers (overground). However, that there are still issues and challenges with respect to the Indian Telegraph Right of Way Rules, 2016 that need to be circumvented to make them more efficient and effective. Department of Telecommunications (DoT) is constantly striving in this direction by collaboration with all stakeholders (DoT, 2022). On the basis of content analysis and survey, the main bottlenecks and hindrances identified are as under:

i. The Right of Way (RoW) rules of States/UTs are not fully aligned with the Indian Telegraph Right of Way Rules, 2016 as amended from time to time in both letter as well as spirit.
ii. The local bodies pose a special challenge in uniform adoption of Right of Way (RoW) rules as they sometimes follow their own bye-laws and rules as against the Right of Way (RoW) rules of the respective State / UT.
iii. Even some of the Central Government Departments, Public Sector Units (PSUs) and agencies like Railways, Ministry of Road Transport and Highways (MoRTH), Delhi Metro Rail Corporation (DMRC) etc. are yet to fully align with Indian Telegraph Right of Way Rules, 2016.

iv. The provision of deemed approval after the expiry of time limit needs to be strengthened by issue of permission letter in an automated fashion.

v. The charges for restoration and varying fees under diverse heads by States and local bodies due to application of local bye-laws are exorbitant at some places resulting in non uniformity. This also adds to the cost of provision of telecommunication infrastructure.

vi. There are inordinate delays in obtaining Right of Way (RoW) permissions in respect of forest areas as well as buildings owned by Government.

vii. The dispute resolution mechanism needs to be structured, robust, fast and effective

viii. The time taken for processing as well as the number of applications rejected is large.

ix. In some of the regions, property tax is being charged by local bodies on telecommunication towers by treating them as regular buildings.

x. Geographic Information System (GIS) mapping of existing telecom infrastructure (optical fiber cables, towers etc.) and street furniture is not available in the GatiShakti Sanchar portal.

xi. There is no provision for regularization of existing cases in the GatiShakti Sanchar portal.

xii. Lack of awareness and training of officials of States/ UTs about the GatiShakti Sanchar portal is an impediment to its effective functioning.

Chapter 5: Recommendations & Conclusion

5.1 Recommendations

Indian democracy has a federal structure with clear delineation of powers and responsibilities between the Union and the State Governments. The federal structure has its own set of merits and demerits for a large and diverse country like India. On one hand, the federal system leads to increased citizen participation in governance and better understanding of local issues while on the other hand it sometimes results in conflict of views and power between the two levels of Government. It is against this backdrop that the assessment of Indian Telegraph Right of Way Rules, 2016 need to be looked into. Based on the observations and findings of content analysis and field survey, the following recommendations are made:

a) Alignment with Indian Telegraph Right of Way Rules, 2016:

The Right of Way (RoW) rules of States/UTs must be aligned *in toto* with the Indian Telegraph Right of Way Rules, 2016 as amended from time to time in both letter as well as spirit. This is required to be done through a collaborative approach between the Union and States by impressing upon the States that telecommunications is key to socio-economic development and is gradually becoming the fourth basic necessity of life- in addition to food, shelter and clothing. Special efforts need to be made in this direction to bring the local bodies on board as they sometimes keep following their own archaic bye-laws and rules including imposition of property tax as against the Right of Way (RoW) rules of the respective State / UT.

A drive needs to be launched to ensure that the Central Government Ministries, Departments, Public Sector Units (PSUs) and agencies fully align themselves with Indian Telegraph Right of Way Rules, 2016 at the earliest.

b) Mapping of Existing Infrastructure in the GatiShakti Sanchar Portal:

The Geographic Information System (GIS) mapping of existing telecom infrastructure (optical fiber cables, towers etc.) and street furniture should be made available in the GatiShakti Sanchar portal. This will go a long way in facilitating Telecom Service Providers (TSPs) and Infrastructure Providers (IPs) to obtain Right of Way (RoW) permissions and provide a fillip to 5G roll out in the country.

c) Strengthening the Provision of Deemed Approval:

The provision of deemed approval after the expiry of time limit for permission needs to be bolstered by issue of permission letter to the applicant in an automated digital fashion through the GatiShakti Sanchar portal . This will ensure that unnecessary delays in approval due to indecision are avoided and fast track the establishment of telecommunication infrastructure.

d) Streamlining Right of Way (RoW) Permissions in Forest Areas:

In order to cut short the excessive delays in obtaining Right of Way (RoW) permissions in respect of forest areas, efforts must be made to board them fully on GatiShakti Sanchar portal. Besides, the procedure followed by Madhya Pradesh needs to be emulated wherein the application for Right of Way (RoW) is sent to the Forest

Department by the office of District Collector and then followed up for expeditious decision.

e) Dispute Resolution Mechanism:

There is ample room for improvement in the existing dispute resolution mechanism wherein the disputes are referred to an officer designated by the Central Government. In order to ensure that the dispute resolution mechanism is structured, fast, effective and robust, an ombudsman is required to be appointed at the capital of each State/ UT.

f) Reduction of Application Processing Time:

The pace of development of technology is so fast these days that the technology landscape undergoes a complete revamp every few years. To keep pace with ever evolving technology, the time limit for processing of applications for Right of Way (RoW) permissions need to be reduced from existing sixty days to forty five days.

g) Regularization of Existing Cases:

There is no provision at present for regularization of existing cases in the GatiShakti Sanchar portal. Incorporation of such a provision will prove to be a boon for the Telecom Service Providers (TSPs) and Infrastructure Providers (IPs) as they will be able to regularize the large number of existing cases of Right of Way (RoW) permissions through a single interface.

h) Creation of Common Ducts:

The need of the hour is the development of common public infrastructure like cable ducts and In-Building passive infrastructure by civic authorities which can be leased out to different Telecom Service Providers (TSPs) and Infrastructure Providers (IPs). It would expedite the roll out of telecommunications infrastructure and minimise the instances of damages to existing infrastructure due to excavation activities.

i) Ranking of States/ UTs:

The ranking of the States/ UTs to measure the performance of States/UTs on the basis of their regulatory environment with respect to digital communications infrastructure in the form of Digital Communications Readiness Index (DCRI) should be prominently displayed on the website of Department of Telecommunications (DoT) and other forums to promote healthy competition.

j) Monitoring of Rejection of Applications:

There should be a committee of experts to monitor and review the applications that have been rejected. This would ensure that rejection of applications becomes an exception rather than the norm.

k) Bearing of Cost by Authority in Case of Removal:

In case the appropriate authority seeks removal of underground or overground telegraph infrastructure, the cost of removal or alteration of such telegraph infrastructure should be borne in part by the authority.

l) Regular Workshops:

Periodic workshops are required to be conducted both at national and State level to improve synergy and cooperation between stakeholders. Such workshops will sensitize the stakeholders about the importance of timely Right of Way (RoW) permissions, help in creating awareness and impart useful training to the officials of States/ UTs about the various provisions of the Indian Telegraph Right of Way Rules, 2016 and working of GatiShakti Sanchar portal. Besides, such platforms can be used to showcase the good practices being followed in some of the States/ UTs for its replication elsewhere in the country.

5.2 Conclusion

Viewing from the prism of federal structure of India, there is little doubt about the fact that the Indian Telegraph Right of Way Rules, 2016 have played a pivotal role in creating an enabling regulatory framework to obtain Right of Way (RoW) permissions for establishment of telecommunication infrastructure. The amendments to the rules bear testimony to the fact that the Union Government has tried to keep pace with the advancement of technology especially 5G to ensure that the rules remain relevant and effective. However, even though the rules have come a long way, still there are distances that need to be covered to realize their true potential and effect. The message that needs to be percolated up to the lowest level is that the Right of Way (RoW) permissions should not be looked upon as a source of revenue. They should rather be treated as enablers of socio-economic development of the region.

5.3 Scope for Further Research

The research was limited to assessment of the Indian Telegraph Right of Way Rules, 2016 as amended from time to time with a wide national perspective. However, for a large and diverse country like India, the regulatory scenario pertaining to Right of Way (RoW) permissions for establishment of telecommunications infrastructure is varied across different States and local bodies. Therefore, a detailed State specific study can be undertaken for further research.

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Chapter 7: Appendices

Appendix-A

MINISTRY OF COMMUNICATIONS

(Department Of Telecommunications)

NOTIFICATION

New Delhi, the 15th November, 2016

G.S.R. 1070(E).—In exercise of the powers conferred by sub-section (1) and clause (e) of sub-section (2) of section 7 read with sections 10, 12 and 15 of the Indian Telegraph Act, 1885(13 of 1885), the Central Government hereby makes the following rules to regulate underground infrastructure (optical fibre) and overground infrastructure (mobile towers), namely:-

CHAPTER I

PRELIMINARY

1. **Short title and commencement.**-(1) These rules may be called the Indian Telegraph Right of Way Rules, 2016.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. **Definitions.**-(1) In these rules, unless the context otherwise requires,-

(a) "Act" means the Indian Telegraph Act, 1885 (13 of 1885);

(b) "appropriate authority" means the Central Government, respective State Governments, local authority or such authority, body, company or institution incorporated or established by the Central Government or the State Government, in respect of property, under, over, along, across, in or upon which underground or overground telegraph infrastructure, is to be established or maintained, vested in, or under, the control or management of such appropriate authority;

(c) "State Government" means the State Government having jurisdiction, and includes the administration of a Union territory;

(d) "licensee" means any person holding a licence issued under sub-section (1) of section 4 of the Act;

(e) "overground telegraph infrastructure" means a telegraph or a telegraph line established over the ground and includes posts or other above ground contrivances, appliances and apparatus for the purpose of establishment or maintenance of the telegraph or the telegraph line;

(f) "rule" means the Indian Telegraph Right of Way Rules, 2016.

(g) "underground telegraph infrastructure" means a telegraph line laid under the ground and includes manholes, marker stones, appliances and apparatus for the purposes of establishment or maintenance of the telegraph line.

(2) Words and expressions used and not defined herein but defined in the Act shall have the meaning assigned to them in the Act.

3. **Applicability.**- The appropriate authority shall exercise the powers under these rules on an application for establishment and maintenance of underground or overground telegraph infrastructure by any licensee on whom the powers of the telegraph authority have been conferred by notification under section 19B of the Act, subject to any conditions and restrictions as may be imposed in such notification.

4. **Nodal officer to be designated by local authority, etc.**-(1) Every appropriate authority shall designate a nodal officer for the purposes of these rules.

(2) The appropriate authority shall develop an electronic application process within a period of one year from the date of coming into force of these rules for submission of applications:

Provided that the State Government may at its discretion establish a single electronic application process for all appropriate authorities under its control.

CHAPTER II

ESTABLISHMENT AND MAINTENANCE OF UNDERGROUND TELEGRAPH INFRASTRUCTURE

5. **Application by a licensee.**—(1) A licensee shall, for the purposes of establishment of telegraph infrastructure under any immovable property vested in or under the control or management of any appropriate authority, make an application, supported by such documents, to that authority in such form and manner as may be specified by that appropriate authority.

(2) The information along with supporting documents to be provided by the licensee in the application made under sub-rule (1) shall include-

(i) a copy of the licence granted by the Central Government;

(ii) the details of underground telegraph infrastructure proposed to be laid;

(iii) the mode of and the time duration for, execution of the work;

(iv) the time of the day when the work is expected to be done in case the licensee expects the work to be done during specific time of the day;

(v) the details of expenses that such appropriate authority will necessarily be put in consequence of the work proposed to be undertaken by the licensee;

(vi) the inconvenience that is likely to be caused to the public and the specific measures proposed to be taken to mitigate such inconvenience;

(vii) the specific measures proposed to be taken to ensure public safety during the execution of the work;

(viii) any other matter relevant, in the opinion of the licensee, connected with or relative to the work proposed to be undertaken; and

(ix) any other matter connected with or related to the work as may be specified, through a general or special order, by the Central Government or appropriate State Government or appropriate local authority:

Provided that the licensee shall, while making the application, give a specific commitment on whether he undertakes to discharge the responsibility for restoration, to the extent reasonable and prudent, of the damage that the appropriate authority shall necessarily be put in consequence of the work proposed to be undertaken.

(3) Every application under sub-rule (1) shall be accompanied with such fee to meet administrative expenses for examination of the application and the proposed work as the appropriate authority may, by general order, deem fit:

Provided that such fee to meet administrative expenses shall not exceed one thousand rupees per kilometer.

6. Grant of permission by appropriate authority.- (1) The appropriate authority shall examine the application with respect to the following parameters, namely:-

(a) the route planned for the proposed underground telegraph infrastructure and the possible interference, either in the establishment or maintenance of such telegraph infrastructure, with any other public infrastructure that may have been laid along the proposed route;

(b) the mode of execution;

(c) the time duration for execution of the work and the time of the day that the work is proposed to be executed;

(d) the estimation of expenses that the appropriate authority shall necessarily be put in consequence of the work proposed to be undertaken;

(e) the responsibility for restoration of any damage that the appropriate authority may necessarily be put in consequence of the work proposed to be undertaken;

(f) assessment of measures to ensure public safety and inconvenience that the public is likely to be put to in consequence of the work proposed and the measures to mitigate such inconvenience indicated by the licensee;

(g) any other matter, consistent with the provisions of the Act and these rules, connected with or relative to the establishment or maintenance of underground telegraph infrastructure, through a general or special order, by the Central Government, appropriate State Government or the appropriate local authority.

(2) The appropriate authority shall within a period not exceeding sixty days from the date of application made under rule 5-

(a) grant permission on such conditions including, but not limited to, the time, mode of execution, measures to mitigate public inconvenience or enhance public safety and payment of restoration charge, as may be specified, subject to the provisions of the Act and these rules; or

(b) reject the application for reasons to be recorded in writing:

Provided that no application shall be rejected unless the applicant licensee has been given an opportunity of being heard on the reasons for such rejection:

Provided further that the permission shall be deemed to have been granted if the appropriate authority fails to either grant permission under (a) or reject the application under (b); and the same shall be communicated in writing to the applicant not later than five working days after permission is deemed to have been granted.

(3) Where the appropriate authority accepts the undertaking by the licensee to discharge the responsibility to restore the damage that such appropriate authority shall necessarily be put in consequence of the work, the appropriate authority, while granting permission under clause (a) of sub-rule (2), may seek a bank guarantee for an amount in lieu of expenses for restoration of such damage, as security for performance in the discharge of the responsibility.

(4) The appropriate authority shall not charge any fee other than those prescribed under sub-rule (3) of rule 5 and clause (a) of sub-rule (2) from the licensee for establishing underground telegraph infrastructure.

7. **Obligations of licensee in undertaking work.**-(1) The licensee shall make the payment of expenses or submit the bank guarantee as determined by the appropriate authority within a period of thirty days from the date of grant of permission and prior to the commencement of work of laying the underground telegraph infrastructure:

Provided that the appropriate authority may, at its discretion, extend the said period for payment of expenses or submission of bank guarantee on an application made by the licensee seeking such extension.

(2) The licensee shall ensure that –

(a) prior to the commencement of work of laying the underground telegraph infrastructure and at all times during the execution of work, the measures to mitigate public inconvenience and provide for public safety are implemented; and

(b) the work of laying underground telegraph infrastructure is carried out in accordance with the conditions specified in the grant of permission by the appropriate authority.

(3) The licensee shall ensure provision of positional intelligence, through appropriate technology, of all underground telegraph infrastructures to enable the appropriate authority to obtain real time information on its location.

8. **Powers of appropriate authority to supervise the work.**-(1) The appropriate authority may supervise the execution of work to ascertain if the conditions imposed in the grant of permission under clause (a) of sub-rule (2) of rule 6 are observed by the licensee.

(2) The appropriate authority may, on the basis of such supervision, impose such other reasonable conditions as it may think fit.

(3) If the appropriate authority comes to the conclusion that the licensee has willfully violated any of the conditions for grant of permission under clause (a) of sub-rule(2) of rule 6, it may forfeit, in full or in part, the bank guarantee submitted by the licensee and withdraw the permission granted to the licensee, for reasons to be recorded in writing:

Provided that no action shall be taken under this sub-rule unless the licensee has been given an opportunity of being heard.

CHAPTER III

ESTABLISHMENT OF OVERGROUND TELEGRAPH INFRASTRUCTURE

9. **Application by a licensee.**—(1) A licensee shall, for the purposes of establishing overground telegraph infrastructure, upon any immoveable property vested in or under the control or management of any appropriate authority, make an application, supported by such documents, to that appropriate authority in such form and manner as may be specified by that appropriate authority.

(2) The information along with supporting documents to be provided by the licensee in the application made under sub-rule(1) shall include-

(i) a copy of the licence granted by the Central Government;

(ii) the nature and location, including exact latitude and longitude, of post or other above round contrivances proposed to be established;

(iii) the extent of land required for establishment of the overground telegraph infrastructure;

(iv) the details of the building or structure, where the establishment of the overground telegraph infrastructure, is proposed;

(v) the copy of approval issued by the duly authorised officer of the Central Government for location of the above ground contrivances proposed to be used for the transmission of Radio waves or Hertzian waves;

(vi) the mode of and the time duration for, execution of the work;

(vii) the inconvenience that is likely to be caused to the public and the specific measures proposed to be taken to mitigate such inconvenience;

(viii) the measures proposed to be taken to ensure public safety during the execution of the work;

(ix) the detailed technical design and drawings of the post or other above ground contrivances;

(x) certification of the technical design by a structural engineer attesting to the structural safety, of the overground telegraph infrastructure;

(xi) certification, by a structural engineer, attesting to the structural safety of the building, where the post or other above ground contrivances is proposed to be established on a building;

(xii) the names and contact details of the employees of the licensee for the purposes of communication in regard to the application made;

(xiii) any other matter relevant, in the opinion of the licensee, connected with or relative to the work proposed to be undertaken; and

(xiv) any other matter connected with or relevant to the work as may be specified, through a general or special order, by the Central Government or appropriate State Government or appropriate local authority.

(3) Every application under sub-rule (1) shall be accompanied with such fee to meet administrative expenses for examination of the application and the proposed work as the appropriate authority may, by general order, deem fit:

Provided that the one-time fee, to meet administrative expenses, accompanying every application shall not exceed ten thousand rupees.

10. Grant of permission by appropriate authority.-(1) The appropriate authority shall examine the application with respect to the following parameters, namely:-

(a) the extent of land required for the overground telegraph infrastructure;

(b) the location proposed;

(c) the approval issued by the duly authorised officer of the Central Government for location of the above ground contrivances proposed to be used for transmission of Radio waves or Hertzian waves;

(d) the mode of and time duration for execution of the work;

(e) the estimation of expenses that the appropriate authority shall necessarily be put in consequence of the work proposed to be undertaken;

(f) assessment of the inconvenience that the public is likely to be put to in consequence of the establishment or maintenance of the overground telegraph infrastructure, and the measures to mitigate such inconvenience indicated by the licensee;

(g) certification of the technical design by a structural engineer attesting to the structural safety of the overground telegraph infrastructure;

(h) certification, by a structural engineer, of the structural safety of the building on which the post or other above ground contrivances is proposed to be established;

(i) any other matter, consistent with the provision of the Act and these rules, connected with or related to the laying of overground telegraph infrastructure, through a general or special order or guidelines by the Central Government, appropriate State Government or the appropriate local authority:

(2) Where the establishment of the overground telegraph infrastructure renders the immoveable property, vested in the control or management of any appropriate authority over which such overground telegraph infrastructure is established, unlikely to be used for any other purpose, the appropriate authority shall be entitled to compensation for the value of the immoveable property, either once or annually, assessed on such rates as that appropriate authority may, by general order, specify.

(3) The appropriate authority shall, within a period not exceeding sixty days from the date of application made under rule 9 -

(a) grant permission on such conditions including, but not limited to, the time, mode of execution, measures to mitigate public inconvenience or enhance public safety or structural safety and payment of restoration charge or compensation , subject to the provisions of the Act and these rules; or

(b) reject the application for reasons to be recorded in writing:

Provided that no application shall be rejected unless the applicant licensee has been given an opportunity of being heard on the reasons for such rejection:

Provided further that the permission shall be deemed to have been granted if the appropriate authority fails to either grant permission under clause (a) or reject the application under clause (b) and the same shall be communicated in writing to the applicant not later than five working days after permission is deemed to have been granted.

(4) The appropriate authority shall not charge any fee other than those mentioned under sub-rule (3) of rule 9 and clause (a) of sub-rule (3) from the licensee for establishing overground telegraph infrastructure.

11. Obligations of licensee in undertaking work.—(1) The licensee shall ensure that –

(a) prior to the commencement of establishment and maintenance of overground telegraph infrastructure and at all times, the measures to mitigate public inconvenience and ensure public safety, including structural safety of such overground telegraph infrastructure are implemented;

(b) the work of establishment and maintenance of overground telegraph infrastructure is carried out in accordance with the conditions specified in the grant of permission by the appropriate authority.

12. Powers of appropriate authority to supervise the work.—(1) The appropriate authority may supervise the establishment and maintenance of overground telegraph infrastructure to ascertain if the conditions imposed in the grant of permission under clause (a) of sub-rule (3) of rule 10 are observed by the licensee.

(2) The appropriate authority may, on the basis of such supervision, impose such other reasonable conditions, as it may think fit.

(3) If the appropriate authority comes to the conclusion that the licensee has willfully violated any of the conditions for grant of permission under clause (a) of sub-rule (3) of rule 10, it may withdraw, for reasons to be recorded in writing, the permission granted to the licensee:

Provided that no action shall be taken under this sub-rule unless the licensee has been given an opportunity of being heard.

CHAPTER IV

RIGHT OF APPROPRIATE AUTHORITY TO SEEK REMOVAL OF UNDERGROUND OR OVERGROUND TELEGRAPH INFRASTRUCTURE

13. Right of appropriate authority to seek removal, etc.—(1) Where the appropriate authority, having regard to circumstances which have arisen since the establishment of any underground or overground telegraph infrastructure under, over, along, across, in or upon, any immoveable property vested in or under the control or management of that appropriate authority, considers that it is necessary and expedient to remove or alter such telegraph infrastructure, it shall issue a notice to the licensee, being the owner of such telegraph infrastructure, to remove or alter its location.

(2) On receipt of the notice under sub-rule (1), the licensee shall, forthwith and within a period of thirty days, proceed to submit, to the appropriate authority, a detailed plan for removal or alteration of such telegraph infrastructure.

(3) The appropriate authority shall, after examination of the detailed plan submitted by the licensee under sub-rule (2), pass such orders as it deems fit:

Provided that the appropriate authority shall, having regard to emergent and expedient circumstances requiring the removal or alteration of such telegraph infrastructure, give a reasonable time of not less than ninety days to the licensee for removal or alteration of such telegraph infrastructure:

Provided further that the responsibility and liability, including the cost thereof, for removal or alteration of such telegraph infrastructure shall be borne by the licensee.

CHAPTER V

DISPUTE RESOLUTION

14. **Disputes between licensee and appropriate authority.**—(1) Any dispute arising between a licensee and the appropriate authority in consequence of these rules, shall be referred to the officer designated by the Central Government.

(2) The Central Government shall, within a period of sixty days from the date of coming into force of these rules, designate, by notification, officers with such jurisdiction as may be mentioned in the notification, for the purpose to referring disputes under sub-rule (1).

(3) The officer designated by the Central Government shall determine the disputes referred to in sub-rule (1) within a period not exceeding sixty days in such manner as may be specified by the Central Government from time to time.

[F. No. 2-6/2014-Policy-I (Vol.II)]

SHASHI RANJAN KUMAR, Jt. Secy.

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Appendix-B

26	संघ राज्य क्षेत्र चंडीगढ़	सचिव, सूचना प्रौद्योगिकी विभाग
27	दादर और नगर हवेली	कलक्टर, सूचना प्रौद्योगिकी विभाग
28	दिल्ली	प्रधान सचिव, शहरी विकास विभाग
29	लक्षद्वीप	प्रशासक के सलाहकार
30	पुदुचेरी	सचिव सूचना प्रौद्योगिकी विभाग

[फा. सं. 2-6/2014-नीति-1 वॉल्यूम-III)]

शशि रंजन कुमार, संयुक्त सचिव

MINISTRY OF COMMUNICATIONS

(Department of Telecommunications)

NOTIFICATION

New Delhi, the 19th June, 2017

G.S.R. 624(E).—In exercise of the powers conferred by sub-rule (2) of rule 14 of the Indian Telegraph Right of Way Rules, 2016, the Central Government hereby designates the officers mentioned in column (3) of the Table below from the respective State Governments/Union territories specified in column (2) of the said Table for the purposes of referring disputes under sub-rule (1) of rule 14 of the aforesaid Rules, 2016 namely:—

TABLE

S. No.	Name of the State Government/ Union Territory (UT)	Designation of the Officer nominated
(1)	(2)	(3)
1.	Andhra Pradesh	Principal Secretary Information Technology, Electronics and Communications Department
2.	Arunachal Pradesh	Secretary Information Technology Department
3.	Assam	Additional Chief Secretary Information Technology Department
4.	Bihar	Principal Secretary Finance Department
5.	Chattisgarh	Secretary Electronics and Information Technology Department
6.	Gujarat	Principal Secretary (Appeals) Revenue Department
7.	Haryana	Principal Secretary Electronics and Information Technology Department
8.	Himachal Pradesh	Principal Secretary Information Technology Department
9.	Jammu and Kashmir	Administrative Secretary Public Works (R and B) Department

10.	Jharkhand	Secretary Information Technology and e-Gov Department
11.	Karnataka	Additional Chief Secretary Urban Development Department
12.	Kerala	Secretary Electronics and Information Technology Department
13.	Maharashtra	Principal Secretary Information Technology Department
14.	Manipur	Commissioner Information Technology Department
15.	Meghalaya	Principal Secretary, Planning Department
16.	Mizoram	Secretary Information and Communication Technology Department
17.	Nagaland	Commissioner and Secretary Information Technology Department
18.	Odisha	Principal Secretary Revenue and Disaster Management Department
19.	Punjab	Secretary Industries and Commerce Department
20.	Sikkim	Principal Chief Engineer cum Secretary Urban Development and Housing Department
21.	Tripura	Principal Secretary Information Technology Department
22.	Uttar Pradesh	Special Secretary Information Technology and Electronics Department
23.	Uttarakhand	Principal Secretary or Secretary Public Works Department
24.	West Bengal	Principal Secretary Information Technology and Electronics Department
25.	Andaman and Nicobar Islands	Principal Secretary Finance and Revenue Department
26.	Union territories of Chandigarh	Secretary Information Technology Department
27.	Dadra and Nagar Havelli	Collector Information Technology Department
28.	Delhi	Principal Secretary Urban Development Department
29.	Lakshadweep	Advisor to Administrator
30.	Puducherry	Secretary Information Technology Department

[F. No. 2-6/2014-Policy-I (Vol. III)]

SHASHI RANJAN KUMAR, Jt. Secy.

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Appendix-C

"परन्तु यह कि भूमि के ऊपर तारयंत्र लाइन स्थापित करने हेतु किए गए आवेदन के मामले में खंड (ii), (iii), (v), (ix), (x) और (xi) में उल्लिखित दस्तावेज अपेक्षित नहीं होंगे-:

परन्तु यह भी कि अनुज्ञप्तिधारी को भूमि के ऊपर तारयंत्र लाइन स्थापित करने हेतु बनाई गयी मार्ग योजना से संबंधित दस्तावेज भूमि के ऊपर तारयंत्र लाइन स्थापित करने हेतु किए गए आवेदन के साथ प्रस्तुत करने होंगे:".

5. (i) उक्त नियम में, नियम 10 में, उप-नियम (1) में, खंड (झ) के बाद, निम्नलिखित परन्तुकों को शामिल किया जाएगा:-

"परन्तु यह कि भूमि के ऊपर तारयंत्र लाइन स्थापित करने हेतु किए गए आवेदन की जांच करने के लिए खंड (क), (ख), (ग), (छ) और (ज) में उल्लिखित प्राचल अनिवार्य नहीं होंगे-:

परन्तु यह भी कि समुचित प्राधिकारी प्रस्तावित भूमि के ऊपर तारयंत्र लाइन के लिए मार्ग योजना की और किसी अन्य लोक अवसंरचना जो इस प्रस्तावित मार्ग के साथ बिछाई जानी है, के साथ ऐसी तारयंत्र लाइन के या तो स्थापन या रख-रखाव में संभाव्य बाधा की जांच करेगा-.";

(ii) उप-नियम (2) में, निम्नलिखित परंतुक शामिल किया जाएगा: -

"परन्तु यह कि जहाँ किसी समुचित प्राधिकारी के नियंत्रण या प्रबंध में निहित या के अधीन किसी स्थावर संपत्ति पर भूमि के ऊपर तारयंत्र लाइन को स्थापित किया जाता है, वहाँ स्थावर संपत्ति के मूल्य के लिए एक बार प्रतिकर स्थापित की गई तारयंत्र लाइन के प्रति किलोमीटर के लिए एक हजार रुपए से अधिक देय नहीं होगा -.";

(iii) उप-नियम (4) में, "स्थापन" शब्द के स्थान पर "स्थापन, अनुरक्षण, चालन, मरम्मत, अंतरण अथवा स्थानांतरण" शब्द प्रतिस्थापित किए जाएंगे।

[फा. सं. 2-41/2020-नीति]

हरि रंजन राव, संयुक्त सचिव

नोट : मूल नियम भारत के राजपत्र, असाधारण, भाग-II, खंड-3, उप-खंड (i) में दिनांक 15 नवम्बर, 2016 की अधिसूचना संख्या सा.का.नि. 1070(अ) के तहत प्रकाशित किए गए थे और दिनांक 21 अप्रैल, 2017 की सा.का.नि. 407(अ) के तहत संशोधित किए गए थे।

MINISTRY OF COMMUNICATIONS
(Department of Telecommunications)

NOTIFICATION

New Delhi, the 21st October, 2021

G.S.R. 749(E).—In exercise of the powers conferred by sub-section (1) and clause (e) of sub-section (2) of section 7 read with sections 10, 12 and 15 of the Indian Telegraph Act, 1885(13 of 1885), the Central Government hereby makes the following rules further to amend the Indian Telegraph Right of Way Rules, 2016, namely:-

1. **Short title and commencement.**-(1) These rules may be called the Indian Telegraph Right of Way (Amendment) Rules, 2021.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Indian Telegraph Right of Way Rules, 2016 (hereinafter referred to as the said rules), in the opening paragraph, for the words "mobile towers", the words "mobile towers and telegraph line" shall be substituted.

3. In the said rules, in rule 6, in sub-rule (4), for the word "establishing", the words "establishing, maintaining, working, repairing, transferring or shifting" shall be substituted.

4. In the said rules, in rule 9, in sub-rule (2), after clause (xiv), the following provisos shall be inserted, namely:–

"Provided that the documents mentioned in clauses (ii), (iii), (v) (ix), (x) and (xi) shall not be required in case of application made for establishment of overground telegraph line:—

Provided further that the documents related to route plan for establishment of overground telegraph line shall be required to be provided by the licensee with the application made for establishment of overground telegraph line:".

5. (i) In the said rules, in rule 10,- in sub-rule (1), after clause (i), the following provisos shall be inserted, namely:–

"Provided that the parameters mentioned in clauses (a), (b), (c), (g) and (h) shall not be necessary for examination of the application made for establishment of overground telegraph line:—

Provided further that the appropriate authority shall examine the route plan for the proposed overground telegraph line and the possible interference in regard to the establishment or maintenance of such overground telegraph line with regard to any other public infrastructure that may have been laid along the proposed route:—";

(ii) in sub-rule (2), the following proviso shall be inserted, namely:–

"Provided that in cases where the overground telegraph line is established over the immovable property, vested in the control or management of any appropriate authority, then in such cases, one time compensation shall be payable for the value of the immovable property, not exceeding one thousand rupees per kilometer of the overground telegraph line established:—";

(iii) in sub-rule (4), for the word "establishing", the words "establishing, maintaining, working, repairing, transferring or shifting" shall be substituted.

[F. No. 2-41/2020-Policy]

HARI RANJAN RAO, Jt. Secy.

Note : The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) *vide* notification number G.S.R. 1070(E), dated the 15th November, 2016 and further amended *vide* G.S.R. 407(E), dated the 21st April, 2017.

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Appendix-D

6(3)	ऐसी भूमिगत तार अवसंरचना की स्थापना के मामलें में कार्य निष्पादन की सुरक्षा के रूप में बैंक गारंटी जहां पर अनुज्ञप्तिधारी द्वारा क्षति को प्रत्यावर्तित करने की जिम्मेदारी का निर्वहन करने के लिए वचनबद्धता दी गई है।	अचल संपत्ति को प्रत्यावर्तित करने हेतु उस क्षेत्र के लिए केन्द्रीय लोक निर्माण विभाग द्वारा निर्धारित या उस क्षेत्र में यदि केन्द्रीय लोक निर्माण विभाग द्वारा दर तय नहीं की गई हो तो उस क्षेत्र हेतु राज्य लोक निर्माण विभाग द्वारा अपेक्षित राशि का 20 प्रतिशत।
10(3) (क)	भूमि के ऊपर तार अवसंरचना की स्थापना	अचल संपत्ति को प्रत्यावर्तित करने हेतु उस क्षेत्र के लिए केन्द्रीय लोक निर्माण विभाग द्वारा निर्धारित या उस क्षेत्र में यदि केन्द्रीय लोक निर्माण विभाग द्वारा दर तय नहीं की गई हो तो उस क्षेत्र हेतु राज्य लोक निर्माण विभाग द्वारा अपेक्षित राशि। इसके अतिरिक्त, अनुज्ञप्तिधारी छोटे सेलों और तारयंत्र लाइन की संस्थापना के लिए खंभों की स्थापना की दशा में अपेक्षित क्षति को प्रत्यावर्तित करेगा।
भाग-।।। प्रतिकर		
6 (1ख)	भूमिगत तार अवसंरचना की स्थापना	शून्य
10 (2)	छोटे सेलों और तारयंत्र लाइन की स्थापना के लिए खंभों की स्थापना	शून्य
10क (4)	छोटे सेलों और तारयंत्र लाइन की स्थापना के लिए मार्ग फर्नीचर का उपयोग	(i) छोटे सेलों की संस्थापना के लिए: शहरी क्षेत्र के लिए तीन सौ रुपए प्रति वार्षिक और ग्रामीण क्षेत्रों के लिए एक सौ पचास रुपए प्रति वार्षिक प्रति मार्ग फर्नीचर। (ii) तारयंत्र लाइन की संस्थापना के लिए: एक सौ रुपए प्रति वार्षिक प्रति मार्ग फर्नीचर।

[फा. सं. 2-10/2022-नीति]

आनन्द सिंह, संयुक्त सचिव

टिप्पणी: मूल नियम भारत के राजपत्र, असाधारण के भाग-।।, खण्ड-3, उप-खण्ड (i) में तारीख 15 नवंबर, 2016 की अधिसूचना संख्या सा.का.नि. 1070 (अ) द्वारा प्रकाशित किए गए थे और सा.का.नि. 407 (अ) तारीख 21 अप्रैल, 2017 और सा.का.नि. 749 (अ) तारीख 21 अक्टूबर, 2021 द्वारा पश्चावर्ती रूप से संशोधित किए गए थे ।

MINISTRY OF COMMUNICATIONS

(Department of Telecommunications)

NOTIFICATION

New Delhi, the 17th August, 2022

G.S.R. 635(E).— In exercise of the powers conferred by sub-section (1) and clause (e) of sub-section (2) of section 7 read with sections 10, 12 and 15 of the Indian Telegraph Act, 1885(13 of 1885), the Central Government hereby makes the following rules further to amend the Indian Telegraph Right of Way Rules, 2016, namely: -

1. (1) These rules may be called the Indian Telegraph Right of Way (Amendment) Rules, 2022.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Indian Telegraph Right of Way Rules, 2016 (hereinafter referred to as the said rules), in the opening paragraph, the brackets and words "(optical fibre)" and "(mobile towers and telegraph line)" shall be omitted.

3. In rule 2 of the said rules, in sub-rule (1), after clause (g), the following clause shall be inserted, namely:-

"(h) "Schedule" means a Schedule appended to these rules.".

4. In rule 4 of the said rules, for sub-rule (2), the following sub-rule shall be substituted, namely:-

"(2) Every application for permission under these rules shall be made by the licensee on an electronic portal developed by the Central Government.".

5. In rule 5 of the said rules, in sub-rule (3), in the proviso, for the words "one thousand rupees per kilometer", the words "the amount specified in Part-I of the Schedule" shall be substituted.

6. In rule 6 of the said rules, -

(a) after sub-rule (1), the following sub-rules shall be inserted, namely: -

"(1A) The area of the underground telegraph infrastructure proposed to be established shall be the length of duct multiplied by the diameter of the duct multiplied by the number of the ducts.

Explanation.- "duct" means a pipe, permanently lubricated or of any other kind, used as underground cable conduit for telegraph line.

(1B) The appropriate authority shall be entitled to receive such compensation from the licensee, not exceeding the amount specified in Part-III of the Schedule, for the use of the property under which the underground telegraph infrastructure is proposed to be established, as may be determined by the appropriate authority.

(b) in sub-rule (2), in clause (a), -

(i) for the words "as may be specified, subject to the provisions of the Act and these rules", the words "not exceeding the amount specified in Part-II of the Schedule" shall be substituted;

(ii) the following proviso shall be inserted, namely:-

"Provided that where horizontal directional digging technology is used for establishing underground telegraph lines, restoration charges shall be levied for pits only.";

(c) in sub-rule (3), after the words "an amount", the words "not exceeding the amount specified in Part-II of the Schedule" shall be inserted;

(d) in sub-rule (4), -

(i) after the word "fee", the words "and compensation," shall be inserted;

(ii) after the word and figure "rule 5", the words, brackets and figure ",sub-rule (1B)" shall be inserted.

7. In rule 9 of the said rules, in sub-rule (3), in the proviso, for the words "ten thousand rupees", the words "the amount specified in Part-I of the Schedule" shall be substituted.

8. In rule 10 of the said rules,-

(a) after sub-rule (1), the following sub-rule shall be inserted, namely:-

"(1A) The area of the overground telegraph infrastructure (mobile tower) proposed to be established shall be the area occupied by the mobile tower and the supporting infrastructures, such as base transceiver station, engine alternator, etc. at the ground.";

(b) in sub-rule (2), for the proviso, the following proviso shall be substituted, namely: -

"Provided that the compensation payable for the immovable property for the establishment of poles for installation of small cells and telegraph line shall not exceed the amount specified in Part-III of the Schedule.".

(c) in sub-rule (3), in clause (a), for the words "or compensation, subject to the provisions of the Act and these rules", the words ",not exceeding the amount specified in Part-II of the Schedule, or compensation, as specified in sub-rule (2)" shall be substituted;

(d) in sub-rule (4), -

(i) after the word "fee", the words "and compensation," shall be inserted;

(ii) after the word and figure "rule 9", the words, brackets and figure ",sub-rule (2)" shall be inserted;

(e) after sub-rule (4), the following sub-rule shall be inserted, namely:-

"(5) For the purposes of this rule, and rule 10B and the Schedule, the expression,-

(a) "mobile tower" means any above-ground contrivance for carrying, suspending or supporting a telegraph and does not include pole;

(b) "pole" means any above-ground contrivance of height not exceeding eight meters for carrying, suspending or supporting a telegraph and does not include mobile tower;

(c) "small cell" means a low powered cellular radio access node that has a coverage of distance from ten meters to two kilometers.".

9. After rule 10 of the said rules, the following rules shall be inserted, namely: –

"10A. Usage of street furniture for installation of small cells and telegraph line.-(1) A licensee shall for the purpose of installation of small cell and telegraph line submit an application, along with details of street furniture and a copy of certification by a structural engineer authorised by appropriate authority, attesting to the structural safety of the street furniture where installation of small cells and telegraph line is proposed to be deployed, to the appropriate authority for permission to use street furniture for installation of small cells and telegraph line.

(2) The application under sub-rule (1), shall be accompanied with such fee as may be determined by the appropriate authority to meet administrative expenses for examination of the application, which shall not exceed the amount specified in Part-I of the Schedule.

(3) The appropriate authority shall, within a period not exceeding sixty days from the date of application made, grant permission or reject the application for reasons to be recorded in writing:

Provided that no application shall be rejected unless the applicant has been given an opportunity of being heard on the reasons for such rejection:

Provided further that the permission shall be deemed to have been granted if the appropriate authority fails to either grant permission or reject the application.

(4) The appropriate authority shall be entitled to receive such compensation from the licensee, not exceeding the amount specified in Part-III of the Schedule, for use of street furniture for installation of small cells and telegraph line, as may be determined by the appropriate authority.

(5) The appropriate central authority may permit installation of small cells on their buildings and structures.

(6) For the purposes of sub-rule (5), the "appropriate central authority" means the Central Government or the authority, body, company or institution, incorporated or established by the Central Government, in respect of property, under, over, along, across, in or upon which underground or overground telegraph infrastructure, is to be established or maintained, vested in, or under, the control or management of such Government, authority, body, company or institution.

10B. Establishment of telegraph infrastructure over private property.– Where the licensee proposes the establishment of overground telegraph infrastructure over any private property, the licensee shall not require any permission from the appropriate authority:

Provided that in case of establishment of mobile tower or pole over a private building or structure, the licensee shall submit an intimation, in writing, to the appropriate authority, prior to commencement of such establishment:

Provided further that along with the intimation, he shall also submit the details of the building or structure, where the establishment of mobile tower or pole is proposed, and a copy of certification by a structural engineer, authorised by the appropriate authority, attesting to the structural safety of the building or structure, where the mobile tower or pole is proposed to be established.".

10. After rule 14 of the said rules, the following Schedule shall be inserted, namely: -

"THE SCHEDULE

[See rules 5 (3), 6 (1B), 6 (2) (a), 6 (3), 9 (3), 10 (2), 10 (3) (a), 10A (2), 10A (4)]

Rule	Item	Amount
(1)	(2)	(3)
Part-I Fee		
5(3)	For establishment of underground telegraph infrastructure	One thousand rupees per kilometer.

9(3)	For establishment of overground telegraph infrastructure	(i) Ten thousand rupees for establishment of mobile towers (ii) One thousand rupees per kilometer for establishment of overground telegraph line. (iii) Nil for establishment of poles, for installation of small cells and telegraph line, on the immovable property vested in, or under control or management of appropriate central authority (iv) One thousand rupees per pole for establishment of poles, for installation of small cells and telegraph line, on the immovable property vested in, or under control or management of appropriate authority, other than appropriate central authority.
10A (2)	For installation of small cells and telegraph line using the street furniture	Nil.
Part-II Charges for restoration		
6(2)(a)	Establishment of underground telegraph infrastructure where undertaking is not given by the licensee to discharge the responsibility to restore the damages	Sum required to restore immovable property as per the rate prescribed by central public works department for that area or as per the rate prescribed by state public works department for that area, if no rate has been prescribed by central public works department for that area.
6(3)	Bank guarantee as security for performance in case of establishment of underground telegraph infrastructure where undertaking is given by the licensee to discharge the responsibility to restore the damages	20% of the sum required to restore immovable property as per the rate prescribed by central public works department for that area or as per the rate prescribed by state public works department for that area, if no rate has been prescribed by central public works department for that area.
10(3)(a)	Establishment of overground telegraph infrastructure	Sum required to restore immovable property as per the rate prescribed by central public works department for that area or as per the rate prescribed by state public works department for that area, if no rate has been prescribed by central public works department for that area. Further, licensee shall restore the damage incurred in case of establishment of poles for installation of Small Cells and telegraph line.
Part-III Compensation		
6(1B)	Establishment of underground telegraph infrastructure	Nil.
10(2)	Establishment of poles for installation of small cells and telegraph line	Nil
10A (4)	Usage of street furniture for installation of small cells and telegraph line	(i) For installation of small cells: Three hundred rupees per annum for urban area and one hundred and fifty rupees per annum for rural areas per street furniture. (ii) For installation of telegraph line: One hundred rupees per annum per street furniture.

[F. No. 2-10/2022-Policy]

ANAND SINGH, Jt. Secy.

Note: The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) *vide* notification number G.S.R. 1070 (E), dated the 15th November, 2016 and subsequently amended *vide* G.S.R. 407 (E), dated the 21st April, 2017 and G.S.R. 749 (E), dated the 21st October, 2021.

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Appendix-E

No.2-10/2022-Policy
Government of India
Ministry of Communications
Department of Telecommunication
*****

Sanchar Bhawan, 20, Ashoka Road
New Delhi, the 26th October, 2022.

OFFICE MEMORANDUM

Subject: - Indian Telegraph Right of Way Rules, 2016 (as amended from time to time) – Clarifications - regarding.

The undersigned is directed to refer to the provisions related to application fee to be paid by the applicants for seeking permission for Right of Way for establishment of telegraph infrastructure and rejection of application [Rule 6(2)(b) and 10(3)(b)] under the Indian Telegraph Right of Way Rules, 2016. In this regard, it is clarified that application fee shall not be deducted (fully or partly) by agencies processing the application, in case of rejection of application on account of deficiency in the documents submitted by the applicants and the application fee paid shall be adjusted on re-submission of application after rectification for the same site.

2. Further, it is also clarified that the term "Street furniture" mentioned in the Indian Telegraph Right of Way (Amendment) Rules, 2022 includes "post/pole used for electricity, street light, traffic light, traffic sign, bus stop, tram stop, taxi stand, public lavatory, memorial, public sculpture, utility pole or any other structure or contrivance of such nature established over the property of an appropriate authority".

3. All concerned Central Ministries/Departments and State Governments/UT Administrations are requested to convey the above clarification to all the agencies who are involved in granting Right of Way permissions for establishment of telegraph infrastructure.

[Rahul Dwivedi]
Under Secretary to the Government of India
Tel. No. 011-23713715

To

1. **Secretaries of all concerned Ministries/Departments** (as per list enclosed).
2. **The Chief Secretaries/Administrators of all States/UTs** (as per list enclosed)

For information to:

1. **The Director General,** Cellular Operators Association of India(COAI), New Delhi.
2. **The Director General, Digital Infrastructure Providers Association(DIPA),** New Delhi.
3. **The President, Internet Service Providers Association of India,** Nehru Place, New Delhi.

Appendix-F

State/UT RoW Policy - Charges non-alignment

State / UT	Administrative charge (Under ground)	Administrative charge (Over ground)	Other charges
Assam	Aligned (Rs. 1000/km)	Aligned (Rs. 10000/site)	Annually Usage Charge for Telecom towers- For Urban Area-Rs. 10000/- For Rural Area-Rs. 5000/-
Chandigarh	Aligned (Rs. 1000/km)	Aligned (Rs. 10000/tower)	Rental for overground infrastructure- Rs. 5 lac per annum of government land and Rs 3 Lac per annum for private land.
Chhattisgarh	Aligned (Rs. 1000/km)	Aligned (Rs. 10000/tower)	Fee for permit- Rs. 150000, 100000, 50000 and 25000 for Urban and Rural Renewal- Rs. 30000, 20000, 10000, 10000 Fee for Shared Site-10000 Rs. each
Haryana	Aligned (Rs. 1000/km-underground OFC)	Aligned (Upto Rs. 10000/ overhead infrastructure)	Annual Charges for right o use- Erection of tower- upto Rs. 15000/-
Nagaland	Aligned (Rs. 1000/km)	Aligned (Rs. 10000/ tower)	Annual Uses charge- For Urban Area-Rs. 10000/- For Rural Area-Rs. 5000/-
Rajasthan	Aligned (Rs. 1000/km)	Aligned (Rs. 10000/ tower)	Annual User Charge- for tower- Rs. 10000 and 5000 for Urban and Rural
West Bengal	Aligned (Rs. 1000/km)	Aligned (Rs. 10000/ tower)	Establishing BTS @ Rs. 10000 per tower is for three years to be renewed thereafter by paying the same
Goa	(Rs. 10000/application)	(Rs. 10000/ application)	Rs. 50000/- One time permission charge for mobile towers; Government land usage charges - Rs.50000/- per tower per month; Roof usage charges for roof top towers - Rs.20000/- per tower per month.
Andhra Pradesh	(Rs. 10000/application)	(Rs. 10000/ application)	Rs 1,00,000/- per tower in All corporations , 1st grade Rs 75,000/- , 2nd and 3rd grade Rs 50,000/- , Nagar Panchayats Rs 30,000/- and Gram Panchayats Rs 15,000/- . One time fee . This is over and above one time admin fee.

Appendix-G

State Specific Policy Implementation Issues (1/4)

State / UT	Main Issues in Policy Implementation	Other Issues
Bihar	Documents like Registered lease deed is being demanded by authorities while processing the application. Same is also not part of the policy (All authorities)	20% charges of the total fee paid is deducted when application is rejected. Same are very high
Chandigarh	Municipal Corporation has still not adopted the UT's RoW Policy	No clarification of the regularization of the old towers
Chhattisgarh	Local Authorities in Raipur , Durg and Bhilai not issuing NOC even after fee is paid	Huge settlement fee 15-50 times prescribed for towers
Dadra & Nagar Haveli and Daman and Diu	Policy notified recently, so authorities down the line not aware about the new framework	Annual tax basis the height of the tower being levied, no such provision in RoW 2016
Goa	Local / Village heads are creating hindrances while the NOC is given by the PWD (nodal)	

State Specific Policy Implementation Issues (2/4)

State / UT	Main Issues in Policy Implementation	Other Issues
Gujarat	GIDC is not following Gujarat ROW Policy. No provision of regularization of the towers	Annual tax basis the height of the tower being levied
Haryana	Demand notes being issued in Gurugram, Ambala and Panchkula as per the old bye laws	Compounding charges 50% of annual charges being levied in Gurugram
Karnataka	Regularization of existing towers is on hold due to online portal still not operational .	Sealing of sites due to public complaints
Kerala	In some cases, the applications are forwarded to council/committees for approval. Same is delaying the approval process.	--
Madhya Pradesh	As of now authorities of Gwalior, Indore and Bhopal are not issuing NoC as per the guidelines	--
Maharashtra	Various municipal corporations/ local authorities still following their own bye laws, rules/ regulations etc. and charge exorbitant amount as admin. Fee. e.g Nagpur, Bhivandi Nizampur, Pimpri Chinchwad etc. charging exorbitant fee up to Rs. 2 Lakh	Validity of permission granted for Telecom Towers is only for 5 Years . After 5 years tower permission has to be renewed with paying same fee and following the process .
Meghalaya	Local Head man demands extra money while installation of towers . Same is outside the policy	--
Delhi	Rentals at Govt locations are very high , NGT has stopped erection of towers in public parks	Local auth generally decide to depned on self generating revenue

State Specific Policy Implementation Issues (3/4)

State / UT	Main Issues in Policy Implementation	Other Issues
Mizoram	Authorities down the line e.g. at BDO level are not aware about the RoW guidelines so approvals are delayed	--
Odisha	Rourkela Steel Plant Authorities demand sharing charges, retrospective rental charges and even disconnects the EB of tower if the demand are not met	Online portal is not taking more than 3 years in Online Portal.
Puducherry	Municipality seeking for remittance of Rs. 2,50,000/- per tower (as per CCIP-2015) as Right-of-Way charges towards erection of mobile towers in municipal areas, failure to which may lead to disconnection/ sealing of telecom towers	--
Punjab	Roof Top Infra. installation has completely come to halt due to the opinion of Hon'ble AG – Punjab, allowing towers/poles/small cells only on auth. buildings	Elec. Dept. demands registered lease agreement for EB connection
Rajasthan	Contradictory orders by Dept. of LSG, Dept. of UDH, leading to NOCs not being issued for existing towers. Absence of facilitation for regularization of towers	RICO not following RoW Guidelines
Telangana	Greater Hyderabad MC still to adhere the rates and charges for pole rentals	Deposit money to be refunded if site is not installed due to any issue on part of Govt.
Tripura	Santir Bazar Municipal Council demands deposit Rs 1 Lakh in lieu of the "NoC Charges" for installation of mobile tower	--
Uttar Pradesh	Local dev. bodies/authorities, Municipal Corp., Indl. Corp., Awas Vikas , Dist. Deve. Authorities etc. NOIDA, Ghaziabad, Lucknow, Gorakhpur Varanasi Dist. rejecting applications basis local byelaws in contravention of State RoW Policy.	Sealing of sites due to public complaints
Uttarakhand	MDDA & HRDA not following UKROW rules	Sealing of towers by MDDA

State Specific Policy Implementation Issues (4/4)

State / UT	Main Issues in Policy Implementation	Other Issues
Delhi	NGT has stopped erection of towers in public parks	--
Andhra	GHMC is charging 10% towards land lease charges for road cutting. It is very high and requested state government for rationalization of the same.	--
West Bengal	Permission granted is valid for 3 years where after renewal has to be made @Rs10,000/- per tower and Rs1000/- per km for OFC laying subsequently after every 3 years	As per latest info, KMC has come on board and will clear all pending permission within 60 days
Tamil Nadu	Payment gateway is not integrated in portal. Districts are directing the Licensee to make manual payment and submit payment receipt for processing the approvals - steps have been taken and will be done shortly by TN Govt.	--

Appendix-H

S.No.	State / UT	Applications Received	Applications Approved	Applications Deemed Approved	Applications Rejected	Applications Pending	Pending Fresh Application	Pending Regularizations	Applications Reverted	Application Withdrawn	Applications Draft	Applications Payment Pending
1	Andhra Pradesh	6179	3945	583	1770	292	292	0	125	0	0	47
2	Arunachal Pradesh	578	348	0	32	132	132	0	59	7	0	0
3	Assam	3514	2658	856	112	507	507	0	237	0	0	0
4	Bihar	22765	16337	676	4619	1637	1588	49	172	0	0	0
5	Chandigarh	100	4	0	17	59	59	0	20	0	0	0
6	Chhattisgarh	463	177	51	71	89	89	0	119	7	0	0
7	Dadra and Nagar Haveli and Daman Diu	24	11	0	7	4	4	0	1	1	0	0
8	Delhi	4488	2227	1079	1171	558	335	223	210	0	0	322
9	Goa	252	182	0	0	70	70	0	0	0	0	0
10	Gujarat	584	53	0	31	413	354	59	83	4	0	0
11	Haryana	21631	6889	242	13207	1327	1020	307	0	208	0	0
12	Himachal	366	16	0	0	74	74	0	140	0	136	0
13	Jammu and Kashmir	349	21	0	3	314	314	0	5	6	0	0
14	Jharkhand	7552	6503	650	3	143	143	0	895	8	0	0
15	Karnataka	5682	1688	3852	167	967	934	33	0	0	171	2689
16	Kerala	11335	2352	0	1330	1572	1572	0	12	4755	0	1314
17	Madhya	9545	6676	3592	1982	887	887	0	0	0	0	0
18	Maharashtra	4806	0	0	0	1250	1250	0	40	0	3510	6
19	Manipur	914	872	41	7	7	7	0	28	0	0	0
20	Meghalaya	13	2	0	0	10	10	0	1	0	0	0
21	Mizoram	1135	845	187	97	52	49	3	0	0	141	0
22	Nagaland	57	57	0	0	0	0	0	0	0	0	0
23	Odisha	3273	2632	1541	3	628	628	0	6	0	0	4
24	Puducherry	87	18	0	22	24	24	0	20	3	0	0
25	Punjab	4902	420	0	2471	821	548	273	840	321	0	29
26	Rajasthan	6394	804	0	379	2437	2437	0	1991	783	0	0
27	Sikkim	123	121	0	2	0	0	0	0	0	0	0
28	Tamil Nadu	39520	10804	0	4297	16534	2204	14330	2577	332	4976	0
29	Telangana	471	371	320	3	97	97	0	0	0	0	0
30	Tripura	13	0	0	3	7	7	0	3	0	0	0
31	Uttar Pradesh	8508	3030	2279	4956	365	209	156	157	0	0	0
32	Uttarakhand	2580	1907	0	0	253	253	0	267	153	0	0
33	West Bengal	1817	1329	0	1	105	105	0	297	0	0	85
Total		170020	73299	15949	36763	31635	16202	15433	8305	6588	8934	4496

Appendix-I

Indian Telecom Sector- An Assessment of 'Indian Telegraph Right of Way Rules, 2016'

Dear Madam / Sir,

I, Manish Kumar Agarwal, am presently pursuing Advanced Professional Program in Public Administration (APPPA) from Indian Institute of Public Administration (IIPA), New Delhi. As an integral part of this program, I am doing a dissertation on the topic 'Indian Telecom Sector- An Assessment of Indian Telegraph Right of Way Rules, 2016' under the guidance of Dr. Sapna Chadah.

The main objective of the study is to identify the issues and challenges in obtaining Right of Way (RoW) permission in a uniform, timely and non-discriminatory manner for establishment of telecommunication infrastructure in the country and suggest remedial measures as way forward.

Your views and inputs on
the subject are valuable for
my study. I, therefore, request you to fill the following questionnaire.

I assure you
that the information being collected is for purely academic purpose and
the basic data privacy norms will be adhered to. Besides, your personal information
will be kept anonymous.

Regards,

Manish Kumar Agarwal

Deputy Director General (DDG), DoT

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* Required

Untitled Section

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1. Name *

2. Designation *

3. Age Group *

Mark only one oval.

- 18 - 30 Years
- 31 - 40 Years
- 41 - 50 Years
- 51 - 60 Years
- Above 61 Years

4. Organisation *

5. Work Experience *

Mark only one oval.

- 0 - 10 Years
- 11 - 20 Years
- 21 - 30 Years
- Above 30 Years

6. Other detail(s) , if any

_____

Note: 'Indian Telegraph Right of Way Rules, 2016' mean 'Indian Telegraph Right of Way Rules, 2016' as amended from time to time.

7. 1. 'Indian Telegraph Right of Way Rules, 2016' have provided an enabling regulatory framework to obtain Right of Way (RoW) permission for establishment of telecommunication infrastructure. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

8. 2. There are still certain shortcomings in the 'Indian Telegraph Right of Way Rules, 2016' that need to be addressed to make them more effective. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

9. *

3. The fee to meet administrative expenses for examination of the application for Right of Way (RoW) permission by the appropriate authority as per provisions of 'Indian Telegraph Right of Way Rules, 2016' is reasonable and just.

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

10. 4. The charges for restoration in case of establishment of underground telegraph infrastructure where the licensee does not undertake to restore the damages as per provisions of 'Indian Telegraph Right of Way Rules, 2016' are reasonable and just. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

11. 5. The amount of bank guarantee as performance security in case of establishment of underground telegraph infrastructure where the licensee undertakes to restore the damages as per provisions of 'Indian Telegraph Right of Way Rules, 2016' is reasonable and just. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

12. 6. The charges for restoration in case of establishment of overground telegraph infrastructure as per provisions of 'Indian Telegraph Right of Way Rules, 2016' are rational and just. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

13. 7. The charges for compensation in case where the establishment of the overground telegraph infrastructure renders the immoveable property unlikely to be used for any other purpose as per provisions of 'Indian Telegraph Right of Way Rules, 2016' are reasonable and just. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

14. 8. The dispute resolution mechanism as per provisions of 'Indian Telegraph Right of Way Rules, 2016' is fair and effective. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

15. 9. As per provisions of 'Indian Telegraph Right of Way Rules, 2016', in case the appropriate authority seeks removal of underground or overground telegraph infrastructure, the cost of removal or alteration of such telegraph infrastructure shall be borne by the licensee. In order to improve ease of doing business, the appropriate authority should bear part of the cost. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

16. 10. The provision of 'Indian Telegraph Right of Way Rules, 2016' regarding deemed approval in case the appropriate authority fails to take decision within specified time has led to reduction in delays in approvals. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

17. 11. As per provisions of 'Indian Telegraph Right of Way Rules, 2016' the appropriate authority shall take decision on the application for establishment of telegraph infrastructure within a period not exceeding sixty days. In order to facilitate early roll out of telecom services, the period needs to be reduced. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

18. 12. The 'GatiShakti Sanchar Portal' has led to major reduction in average time for approval of RoW applications. *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

19. 13. 'Indian Telegraph Right of Way Rules, 2016' have sufficient provisions to take care of roll out of 5G services especially the Small Cells. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

20. 14. The methodology prescribed in 'Indian Telegraph Right of Way Rules, 2016' to calculate the area occupied by telecom infrastructure has brought uniformity in computation of area and associated charges for the telecom infrastructure across the country. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

21. 15. Are there any issues related to Right of Way (RoW) permission for establishment of telecommunication infrastructure that have not been envisaged / adequately covered in the 'Indian Telegraph Right of Way Rules, 2016'. Please specify. *

22. 16. Please specify the amendments / changes/ modifications in the existing provisions that are required to make 'Indian Telegraph Right of Way Rules, 2016' more effective. *

23. 17. Please suggest the measures to make the 'GatiShakti Sanchar Portal' more effective. *

24. 18. Other inputs, if any.

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