

**GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATIONS**

**LOK SABHA
UNSTARRED QUESTION NO. 4725
TO BE ANSWERED ON 29TH MARCH, 2023**

TRAI

4725. SHRI RAVNEET SINGH BITTU:

Will the Minister of COMMUNICATIONS be pleased to state:

- (a) whether the Telecom Regulatory Authority of India (TRAI) has released its recommendations recently on 'Ratings of Buildings or Areas for Digital Connectivity';
- (b) if so, the details of the recommendations given in the report of the TRAI;
- (c) whether the TRAI has recommended for making digital infra mandatory in building plans;
- (d) if so, the details thereof and if not, the reasons therefor; and
- (e) whether the Government intends to implement the recommendations of the TRAI and if so, the likely date by which these recommendations are proposed to be implemented and if not, the reasons therefor??

ANSWER

**MINISTER OF STATE FOR COMMUNICATIONS
(SHRI DEVUSINH CHAUHAN)**

(a) & (b) Sir, Telecom Regulatory Authority of India (TRAI) has released its recommendations on 'Ratings of Buildings or Areas for Digital Connectivity' dated 20.02.2023 as detailed in the Annexure.

(c) & (d) Telecom Regulatory Authority of India (TRAI) has recommended that Digital Connectivity Infrastructure (DCI) should be an essential component of the building development plans, on the lines of water supply, electrical services, gas supply, fire protection and fire safety requirements, etc.

(e) The said recommendations of TRAI are under examination of the Government.

TRAI Recommendations on 'Rating of Buildings or Areas for Digital Connectivity' dated 20.02.2023

1. Model Building Bye-Laws (MBBL) and National Building Code of India (NBC) should be amended to incorporate necessary provisions on Digital Connectivity Infrastructure (DCI) as recommended herein.
2. DCI should be made an essential component of the building development plans, on the line of water supply, electrical services, gas supply, fire protection and fire safety requirements, etc.
3. In case of development of Buildings in rural, semi-urban, remote and hilly areas, etc. where MBBL is not directly applicable, the Government may work with State Governments/ UTs for incorporation of suitable provisions for DCI development in the respective bye-laws or other relevant laws of the State Governments/ UTs.
4. As RERA act protects the interests of the consumers of the real estate sector and provides platform for speedy disposal of their disputes, that provisions for mandating DCI inside the Buildings, its maintenance, timely upgradation, etc. should be incorporated in the builder-buyer agreement for covering it under the jurisdiction of RERA act and its enforceability by the RERA.
5. The actors to design, deploy and evaluate the DCI should include the Property Manager and DCI Professionals i.e., DCI Designer, DCI Engineer and DCI Evaluator, where:
 - a) The Property Manager is the person or body who is responsible to oversee and manage the development, operation and maintenance of a Building and has the authority either as owner(s) of the Building or as an agent of the owner(s). The term "Property Manager" would include an owner or a developer or a builder of a real estate project(s) or an area(s) responsible to plan, design and build facilities like Multi-storey residential buildings, Commercial buildings or complexes, etc.
 - b) DCI Designer is a professional who has the competence and possesses prescribed qualifications to design DCI for Buildings.
 - c) DCI Engineer is a professional who has the competence and possesses prescribed qualifications to implement the DCI designed for Buildings.
 - d) DCI Evaluator is a professional who has the competence and possesses prescribed qualifications to measure and evaluate the quality of the DCI deployed inside Buildings.
6. Any person who possesses the requisite skills, as may be prescribed, can perform the functions as DCI Designer or DCI Engineer or DCI Evaluator.
7. A separate chapter should be included in MBBL on comprehensive framework for development of DCI.
8. The Bureau of Indian Standards (BIS) should be tasked to review existing standards and procedures of DCI for Buildings.
9. The "National Building Code Sectional Committee" constituted under NBC, also referred as Guiding Committee should include members from the Department of Telecommunication and Telecom Industry.
10. The Panel on 'Information and Communication Enabled Installations' under NBC (Volume II, Part 8, Section 6) should be expanded to include representatives from Telecommunication Engineering Centre (TEC) and Telecommunications Standards Development Society India

(TSDSI) and, experts on telecom RF planning and experts on digital modelling of Buildings. The convener of this panel should be the representative nominated by DoT.

11. On standards for products and procedures for DCI,
 - a) the BIS should prescribe and update standard templates which will be used by Property Managers for collecting building-related information and connectivity requirements of users. In case of non-availability of data from the users, the Property Manager shall use the data available for similar Buildings. Data collected through such templates shall be used by the DCI Designers.
 - b) the standards and procedures framed, and templates prescribed for DCI by BIS should be made part of the National Building Code (NBC).
 - c) TEC should continue to work as the equipment standardisation and certification agency for standard products and equipment required for DCI.
 - d) TEC should prescribe necessary specifications in respect of new products required for upgradation of DCI.
 - e) TEC should also ensure that the certified products for DCI are shareable and interoperable.
 - f) TEC should enlist and publish such DCI products and equipment which require certification.
12. The BIS should prescribe different standards for different classes of Buildings for DCI.
13. Further, the BIS should also prescribe such provisions of DCI that would be mandatorily required (essential requirements) to be completed for issuance of completion/occupancy certificate for Buildings.
14. The Property Manager shall be the owner of the deployed DCI whether created by himself or through his agent and shall be responsible for maintenance, expansion and upgradation of such DCI. The Property Manager shall allow access of DCI to all service providers in fair, non-chargeable, transparent and non-discriminatory manner and shall not have any exclusive arrangements or agreements with any infrastructure/service provider. Provided that in case active wireless equipment is installed by a licensee, the licensee will be responsible for maintenance, expansion and upgradation of such DCI and to that extent, the ownership lies with that licensee. However, this installation of active wireless equipment will be carried out on behalf of the Property Manager and Property Manager shall be responsible for ensuring that the licensee compulsorily gives access of such active wireless equipment to all service providers on fair, transparent, non-discriminatory, and nonexclusive manner.
15. Further, an amendment to the present Unified license conditions with a proviso for compulsory sharing of active wireless equipment in the Buildings may be carried out.
16. The revenues earned by sharing of active wireless equipment, as part of DCI, by lessor licensees should not attract License Fee (LF). For the same, such revenues should be reduced from the Gross Revenues (GR) of the lessor licensee to arrive at Applicable Gross Revenue (ApGR) of such lessor licensee. To implement above recommendation, it is further recommended that, a new item named as "Revenue earned from other licensees from sharing of active wireless equipment, as part of DCI" should be inserted under the license provisions namely "List of other items to be excluded from GR to arrive at ApGR". It is also recommended that, appropriate modification may be carried out in UL, UL(VNO) and ISP licenses. Also, the information collected in "Format of Statement of Revenue and License Fee" that is attached with each authorization chapter in UL, UL(VNO) and with ISP licenses needs to be modified to capture information from such revenues under a separate head.

17. For existing Buildings where DCI is partly created, a collaborative approach among stakeholders to decide ownership i.e., Property Manager for development, upgradation and expansion of DCI. However, in cases where DCI is developed by a service provider/ IP-I(s), till no suitable arrangement is worked out to transfer the DCI to the Property Manager, such service providers/ IPIs shall be governed by the mandatory provisions of the license/ registration conditions.
18. The "Use of Street Furniture for Small Cell and Aerial Fibre Deployment" wherein it was recommended that "enabling provisions or suitable terms and conditions shall be introduced in all telecom licenses and IP-I registration agreement prohibiting the TSPs/IP-I providers from entering into any exclusive contract or right of ways with infrastructure owners/CAAs or any other authority".
19. In case of introduction of new spectrum bands, change in technologies, increased users' demands etc.,
 - a) DoT should take up with BIS and MoHUA for incorporation of amendments in National Building Code and Model Building Bye-Laws, respectively.
 - b) BIS should also prescribe essential provisions that would be required to be carried out by Property Manager for upgradation and expansion of DCI.
20. The MBBL should have appropriate provisions for the approval of upgradation and expansion of DCI.
21. The Property Manager should ensure upgradation and expansion of DCI in the timeline as will be prescribed in the MBBL.
22. In all existing Buildings owned by the Government, PSUs or autonomous bodies of the Government, commercial buildings and public places such as airports, ports, railway stations, bus stations, metro stations or any other Building as may be decided by MoHUA in consultation with DoT, DCI shall be upgraded or provided to meet the requirements of state-of-the-art digital connectivity. In such cases, the building bye-laws should prescribe a reasonable time frame so as to ensure availability and accessibility of upgraded DCI.
23. The existing Buildings other than those mentioned in recommendation no. 22, the new building bye-laws should be issued by MoHUA within three years after due consultation with the various stakeholders. Till then, the Property Managers of such existing Buildings shall implement the new bye-laws voluntarily.
24. The Indian Telegraph Act, 1885 should be amended as follows:
 - a) The Central Government may prescribe through rules for formation of Council of Digital Connectivity Infrastructure (CoDCI).
 - b) The rules may specify the manner of certification of persons to design, deploy and evaluate DCI.
 - c) Such rules may specify the qualification of and terms and conditions subject to which, such certification may be granted, including through conduct of examinations for granting such certifications, the fees and charges to be paid thereof, and other connected matters.
25. A Council of DCI (CoDCI) should be established under the Department of Telecommunications (DoT), Ministry of Communication in collaboration with the Ministry of Housing and Urban Affairs (MoHUA), All India Council for Technical Education (AICTE), National Skill Development Council (NSDC), Telecom Sector Skill Council (TSSC), and Construction Skill Development Council (CSDC) or any other

- organisation/institution as deemed appropriate. The CoDCI shall be responsible for taking all decisions in respect of certification, registration and capacity building of DCI Professionals.
26. The broad roles and responsibilities of CoDCI are as follows:
 - a) To prescribe the qualification, roles and responsibilities of DCI Professionals.
 - b) To study the content of existing similar courses within and outside India and their suitability for DCI Professionals in India.
 - c) To suggest appropriate Graduate and Diploma courses including elective/ certification courses at various levels for DCI Professionals.
 - d) To accredit institutes and organisations for offering courses related to DCI. Considering that there are large number of Buildings in each State and UT, there may be a requirement of accreditation of institutions across all States and UTs for offering such courses and development of the workforce.
 - e) To conduct examination and certify DCI Professionals.
 - f) To organise training for trainers and skill upgradation of DCI professionals.
 - g) To register qualified and certified DCI Professionals, on similar lines to the CoA. Such Professionals once engaged by Property Managers for development of DCI and declared on their plan documents shall be Persons on Record.
 - h) To maintain a register of DCI Professionals and publish the same on online portal for access and use by various stakeholders.
 - i) To keep a track of various activities related to capacity building and dissemination of the information to all stakeholders, the council needs to develop a digital platform for the cohesive implementation of DCI and linking of the same with various agencies.
 - j) Any other work related to capacity building as deemed fit by the council.
 27. The CoDCI, within one year of its establishment or three years from the date of these recommendations, whichever is earlier, should establish a mechanism for certification, registration and capacity building of DCI Professionals including setting up of digital platform for the cohesive implementation of DCI.
 28. The time CoDCI is established, the provisions in new building bye-laws for DCI herein must be implemented by utilizing the services of the existing professionals already working in the field of design and development of Buildings and DCI.
 29. The digital platform should be developed and maintained by CoDCI. The broad objectives of the digital platform include but not limited to the following:
 - a) Activities related to capacity building of DCI Professionals:
 - i. Publish details of the courses, accredited institutions and the process for admissions, and applicable fee structures if any.
 - ii. Facility for conducting examinations for certification of DCI Professionals.
 - iii. Registration facility for certified DCI Professionals.
 - b) Publish the list of registered DCI Professionals and certified products and tools.
 - c) Provide a marketplace for buying and selling of certified products. Such e-marketplace should be linked with Open Network for Digital Commerce (ONDC).
 - d) Enable Property Managers to hire services of registered DCI Professionals.
 - e) Enable interaction and collaboration among various stakeholders through various technologies and tools.
 - f) To provide a feedback mechanism for the services delivered by registered DCI Professionals and certified products used.

- g) To maintain details with regard to development projects/ Buildings approved - ongoing, completed and put to use by the local bodies and other competent authorities.
 - h) To create a repository in respect of the service providers along with technologies and spectrum bands, who are offering services in the area and update the same from time to time.
 - i) To create a repository of knowledge based on past learning of implementation of DCI projects to support in standardisation of the processes.
 - j) To make available on a regular basis the information on standards, technology and best practices within India and at global level related to DCI.
 - k) To publish analytical reports/articles on DCI development and related issues.
 - l) To make available acts/ laws/ bye-laws/ rules/ regulations related to DCI.
 - m) To facilitate online application, clearance and approval process for service providers seeking access to DCI created in Buildings
30. Till the time CoDCI is established, the digital platform should be created by DoT to meet immediate objectives, which can later be handed over to the CoDCI.
31. The approval of DCI design, deployment and use of Buildings should remain with the existing institutions as per statute of State/UT Governments for the purpose.
32. The Authorities of the States/UTs responsible for approval of DCI development plans and evaluations thereof, should hire the services of a suitable expert/agency duly registered and certified by the Council of DCI (CoDCI).
33. The BIS Panel on 'Information and Communication Enabled Installations' should develop standards in respect of DCI for the Buildings, to be included in the National Building Code. The definitions, related to DCI, should be made part of the NBC.
34. The appropriate provisions for Rating of Buildings for Digital Connectivity should be included in the MBBL, on the lines of the provisions made in the MBBL for rating of green buildings.
35. To start with, the Rating of Buildings for digital connectivity should be made mandatory for all existing as well as new Buildings of public importance within two years of issue of the regulatory framework by TRAI or two years from obtaining occupancy certificate, whichever is later. The Rating of the following Buildings of public importance should be made mandatory:
- a) Airports,
 - b) Ports,
 - c) Railway/ metro stations,
 - d) Bus stations,
 - e) Buildings of Central/ State/ UT Governments/ Local authorities/Government agencies/ PSUs,
 - f) Government residential colonies,
 - g) Industrial estates including industrial parks, SEZs, multi-modal logistic parks,
 - h) Large commercial office complexes,
 - i) Large commercial shopping complexes,
 - j) All institutes of higher education including research institutes,
 - k) All multi-speciality hospitals, and
 - l) Any other Buildings as Government may decide. (Para 3.4.6)

36. The Rating of Buildings for digital connectivity should be made mandatory for all new Buildings, excluding the class of Buildings as may be decided by MoHUA in consultation with the States/ UTs and other stakeholders.
37. The Property Manager should get Buildings rated for digital connectivity within two years of obtaining the occupancy certificate once TRAI has issued the regulatory framework.
38. For Buildings other than those mandated, the Property Manager may get their Buildings rated for digital connectivity on voluntary basis.
39. A new draft chapter on DCI for the Buildings, as suggested in the Appendix-I to this chapter, should be included in the Model Building Bye Laws, in line with the recommendation no. 7
