Dynamic Spectrum Alliance Limited
http://www.dynamicspectrumalliance.org

May 25, 2026

Telecom Regulatory Authority of India (TRAI)
4th–7th Floor, Tower-F,
World Trade Centre, Nauroji Nagar,
New Delhi – 110029

Re: Proliferation of Public Wi-Fi Networks in India

Dear Sir/Madam,

The Dynamic Spectrum Alliance[1] (DSA) welcomes the opportunity to respond to TRAI's consultation on Public Wi-Fi proliferation in India. The DSA strongly supports the expansion of Public Wi-Fi as an important tool for advancing affordable connectivity, digital inclusion, and better access to public services, particularly in areas where fixed broadband and mobile data alone do not fully meet user needs.

The DSA believes that the successful scaling of Public Wi-Fi requires an enabling policy and regulatory framework that addresses both supply-side and demand-side barriers.

The DSA's response therefore emphasizes that Public Wi-Fi policy should be designed with a user centric approach, and ensure that connectivity benefits reach communities across rural, urban, and high-footfall environments.

Sincerely,

Dr. Martha Suárez
President
Dynamic Spectrum Alliance

[1] The DSA is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all. Our membership spans multinationals, small-and medium-sized enterprises, as well as academic, research and other organizations from around the world all working to create innovative solutions that will benefit consumers and businesses alike by making spectrum abundant through dynamic spectrum sharing. A full list of DSA members is available on the DSA's website at:https://www.dynamicspectrumalliance.org/members.

Q1. What are the key supply-side constraints affecting Public Wi-Fi proliferation in India? What targeted policy or regulatory measures may be required to address these supply-side constraints? Please provide your response in detail with justification.

Public Wi-Fi proliferation in India is constrained by structural deployment barriers, but recent regulatory interventions have aimed to improve economic viability and technical feasibility. TRAI's more recent measures have focused on lowering costs for small providers, including tariff reforms for PDOs (Public Data Offices), (section 2.60), technical changes that allow multiple Wi-Fi access points to be aggregated on one broadband connection and a second public "PM-WANI SSID" on existing routers (section 2.61), recommendations to delicense the V-band for low-power use (sections 2.62–2.63) and a specially positive and impactful spectrum reform through delicensing of the lower 6 GHz band.

A further constraint is the availability of robust backhaul. TRAI's report explains that backhaul is essential for reliable connectivity and scalable Wi-Fi deployment (section 2.64), and notes that limited last-mile fibre extension to neighbourhoods, public locations, and community spaces continues to constrain rollout (section 2.67). In this context, the TRAI framework suggests that policy should focus not only on access points, but also on affordable transport connectivity, shared infrastructure, and smoother implementation. DSA agrees on this vision.

The proliferation of small operators and Wireless Internet Service Providers (WISPs) could be treated as a relevant positive indicator rather than as a limitation by itself, especially when international evidence such as Brazil shows that small and regional providers can be an important part of broadband expansion when regulation, funding, and access to backhaul are supportive.[2]

To address these challenges, policy and regulatory interventions should focus on reducing deployment friction and improving the commercial viability of public Wi-Fi networks. As TRAI notes, the ecosystem remains fragmented and limited in scale, that some initiatives have faced operational challenges related to maintenance, service quality, and long-term sustainability. Stakeholders should consider direct and indirect revenue models suitable for ensuring sustainability.

Q2. What are the major demand-side constraints limiting the uptake of Public Wi-Fi services in the country? What targeted policy or regulatory measures may be required to address these demand-side constraints? Please provide your response in detail with justification.

Public Wi-Fi uptake in India is constrained by demand-side factors that affect user trust, convenience, and perceived value. Awareness of PM-WANI and other Public Wi-Fi services remains limited, and this is reinforced when hotspot quality varies across locations or when the user experience feels inconsistent.

User trust is also affected by perceptions of reliability and service quality. TRAI explains that security, privacy, and trust deficits discourage users from connecting to Public Wi-Fi, especially when service quality is uneven or when logins are cumbersome. The TRAI further notes that many Public Wi-Fi deployments operate as isolated networks, causing users to face repeated logins and interrupted connections when moving between hotspots (section 2.90-2.92). Public Wi-Fi should be presented as a simple, secure, and reliable everyday connectivity option.

Policy responses should therefore focus on building confidence and reducing friction. Public awareness campaigns, clearer consumer-facing information, multilingual onboarding, and more consistent service quality would improve uptake. TRAI's discussion in sections also points to the need to modernize authentication, payments, and roaming, and specifically highlights seamless roaming

[2] https://dynamicspectrumalliance.org/2024/FinalreportWISPAnalysis.pdf

models such as OpenRoaming as a benchmark for interoperability (section 2.134–2.139). DSA supports OpenRoaming and believe that public Wi-Fi will scale only if users perceive it as a practical, seamless, and dependable alternative rather than an occasional fallback.

Q3. Despite the PM-WANI initiative, scaling the number of public hotspots across diverse geographies, especially in remote and underserved regions, remains uneven. What are the key challenges in expanding both the density and geographic spread of hotspots, and what strategies could help accelerate more balanced, nationwide coverage? Please provide your response in detail with justification.

The uneven spread of Public Wi-Fi across geographies reflects the fact that rollout economics differ sharply by location. TRAI notes that the consultation is framed around three distinct contexts—rural areas, urban areas, and high-footfall areas—because each requires different deployment logic and support structures (section 2.95). It also explains that rural areas face constraints in reliable backhaul and infrastructure, while urban areas already have relatively stronger broadband availability and therefore attract more deployment activity (section 2.96–2.97). PM-WANI rollout has therefore tended to concentrate in places with stronger infrastructure and clearer commercial prospects (section 2.52, 2.54, 2.96–2.97).

International experience supports this differentiated approach. In Brazil, community networks are authorized, and small and regional providers account for a significant share of the market. The DSA WISP Analysis report notes that regulation, funding, and access to backhaul are critical for expansion. Indonesia also illustrates how public Wi-Fi can scale through partnerships and ecosystem support, with public Wi-Fi initiatives having been deployed there as part of broader connectivity efforts.

A more balanced nationwide strategy should combine market-led rollout in commercially viable areas with targeted intervention in harder-to-serve geographies. Public-private partnerships, viability-gap support, and locally rooted deployment models can help extend coverage in areas where the market alone is unlikely to deliver sufficient scale. The policy focus should be on sustained availability and meaningful coverage, not just numerical deployment targets.

Q4. What changes, if any, are required in the existing PM-WANI framework to improve revenue certainty and long-term sustainability for PDOs/PDOAs? Please provide your response in detail with justification.

The PM-WANI framework should evolve to improve long-term sustainability for PDOs and PDOAs. Clearer long-term policy signals, license-exempt access to the upper 6 GHz band, lower compliance friction, simpler operational rules, and the ability to build different business models around different user segments and venue types would improve sustainability. The objective should be to create a more stable operating environment without undermining low barriers to entry.

Sustainability would also improve if providers could integrate Public Wi-Fi into broader service offerings. The framework should support utilisation, reduce avoidable friction in service delivery, and allow more flexible monetisation structures that fit local market conditions.

Q5. Are there any other challenges currently faced by PDOAs/PDOs? If yes, what changes can enhance the participation of entrepreneurs under the PM-WANI framework? Please provide your response in detail with justification.

To improve participation, the framework should be easier to enter and easier to operate. This means simpler onboarding, proportionate compliance, affordable wholesale bandwidth, practical training,

and common technical frameworks.

Q6. Are there improvements needed in the Authentication, Authorization, Roaming, and Payment architecture of the PM-WANI Framework? Please share suggestions, if any. Please provide your response in detail with justification.

The authentication, authorization, roaming, and payment architecture of PM-WANI needs to become more usable and more interoperable. Repeated logins, fragmented onboarding paths, and inconsistent provider-specific user journeys create friction and reduce the attractiveness of Public Wi-Fi, especially for first-time and occasional users.

The architecture should move toward a simpler, more standards-based model. Authentication and authorization should minimise user effort while preserving security, accountability, and lawful compliance. The framework should also support interoperable roaming and payment so that users can move across participating networks and complete transactions consistently.

Common interfaces and better alignment across providers are essential. For example, OpenRoaming is a standards-based roaming framework that enables automatic and seamless Wi-Fi authentication across participating networks, reducing the need for repeated logins and improving the user experience. A more unified architecture would improve usability for consumers and also support scale and operational efficiency for providers.

Q7. In the Indian context, which of the following models would be more appropriate for the proliferation of Public Wi-Fi?
a. A model where the Government actively ensures hotspot deployment through direct funding and implementation support, including backhaul provision, or
b. A model where the Government primarily ensures availability of robust backhaul infrastructure and intervenes in hotspot deployment only in cases of market failure.
Please provide your response in detail with justification.

In the Indian context, a hybrid model is the most appropriate. Market-led deployment should remain the default approach in urban and commercially viable areas, where higher demand and denser infrastructure can support sustainable private participation. However, where market failure persists, especially in rural, remote, tribal, and economically underserved regions, government intervention remains necessary to enable deployment by improving backhaul availability, reducing deployment barriers, facilitating infrastructure sharing, securing adequate Wi-Fi spectrum, and supporting access to funding and credit for smaller operators and community networks.

The Government's primary role should be to enable the ecosystem rather than replace it. This includes strengthening backhaul availability, reducing deployment barriers, facilitating infrastructure sharing, securing adequate spectrum for Wi-Fi, and facilitating access to credit for small companies, while intervening selectively where the market will not deliver adequate coverage on its own.

This hybrid model best aligns efficiency with inclusion. It preserves private-sector dynamism where commercial deployment is viable while ensuring that digital inclusion objectives are not limited to geographies that already offer attractive returns.

Q8. Is there a need to adopt separate strategies for Public Wi-Fi proliferation in rural and urban areas? If yes, suggestions may be provided. Please provide your response in detail with justification.

Yes, separate strategies are required because the economics, infrastructure environment, and demand patterns in rural and urban areas are materially different. Urban deployments can generally rely on denser existing infrastructure, greater footfall, and stronger monetisation potential, which makes higher-density and commercially led rollout more feasible. Rural deployments, by contrast, often require lower-cost models, stronger public-interest justification, and more targeted support.

Urban strategies should focus on coverage density, consistent service quality, integration with transport and public venues, and support for enterprise, institutional, and smart city use cases.

Rural strategies should place greater emphasis on affordability, sustainability, community-based models, anchor institutions, and flexible backhaul options where fibre is unavailable. In rural and underserved areas, policy should also consider Automated Frequency Coordination (AFC) enabled and standard-power Wi-Fi deployments, including outdoor use cases that can support fixed wireless access and improve affordable coverage where fibre is unavailable

A differentiated policy approach is therefore preferable to a uniform national model. Such an approach would align deployment methods more closely with local conditions while maintaining common standards for user experience, security, and service quality.

Q9. What measures can be taken to improve the deployment and uptake of Public Wi-Fi networks in high-footfall areas for both outdoor such as bus stops, roadside transit points, open public parks, markets, tourist sites, and indoor such as airports, railway stations, malls, public institutions? Please provide your response in detail with justification, separately for outdoor and indoor scenarios.

High-footfall locations require differentiated strategies for outdoor and indoor environments because the infrastructure conditions, traffic profiles, and operating requirements differ significantly. In both settings, however, the objective should be to deliver reliable, easy-to-use, and high-capacity connectivity that can support concentrated user demand.

For outdoor locations such as bus stops, parks, markets, roadside transit points, and tourist sites, the main priorities are streamlined access to public assets, faster municipal approvals, dependable power, and robust backhaul. Shared infrastructure models, easier use of street furniture, and integration with local public-service or tourism applications can improve both rollout efficiency and user value. Outdoor network design should also account for resilience, coverage, and density under variable operating conditions.

For indoor locations such as airports, railway stations, malls, and public institutions, the focus should be on enterprise-grade capacity, strong network management, seamless user access, and integration with venue operations. Newer Wi-Fi standards, including Wi-Fi 6E and Wi-Fi 7, can be particularly valuable in such high-density environments where spectrum availability and equipment capabilities permit. For especially dense venues such as stadiums and major campus environments, practical experience from institutions such as the University of Notre Dame[3] underscores the importance of planning for concentrated user demand, venue-specific traffic patterns, and robust network design. Venue partnerships and managed service arrangements can further support long-term quality and sustainability.

Q10. If the Government decides to provide financial support for the proliferation of Public Wi-

[3] https://dynamicspectrumalliance.org/summit2025/monisha-ghosh-2025-11-17-6ghz.pdf

Fi, which funding mechanisms would be most suitable for India? Should a uniform funding mechanism be adopted nationwide, or should differentiated funding mechanisms be used for rural, urban, and high-footfall areas? Please provide your response in detail with justification.

Differentiated funding mechanisms are likely to be more effective than a uniform nationwide model, although a uniform framework may offer advantages in terms of simplicity and economies of scale. The economics of Public Wi-Fi deployment vary substantially across rural, urban, and high-footfall environments, and public support should therefore be tailored to the degree of market failure, deployment cost, and public-interest value in each context. Brazilian WISP ecosystem shows that small providers can contribute meaningfully to broadband expansion when policy support, credit access, and financing mechanisms are available.

Rural and underserved areas are the strongest candidates for direct support because costs are higher, traffic volumes are lower, and commercial viability is weaker. In such cases, mechanisms such as viability-gap funding, universal service-type support, grants, or co-funding for anchor-institution and backhaul-linked deployment may be justified.

Urban and high-footfall areas usually have stronger commercial potential and should rely more on market-led or mixed-finance models. In those locations, public funding should be used selectively to address specific bottlenecks, public-interest obligations, or service quality requirements rather than to replace viable private investment.

Q11. What criteria should govern the allocation and disbursement of funds across rural, urban, and high-footfall areas, respectively? Please provide your response in detail with justification.

Funds should be allocated and disbursed based on connectivity need, affordability, public-interest value, deployment feasibility, and long-term sustainability rather than hotspot counts alone. Funding should go first to places where the market is unlikely to deliver coverage without support and where Public Wi-Fi can materially improve access to education, healthcare, government services, transport connectivity, or digital inclusion.

In rural and underserved areas, the relevant criteria should include connectivity deficit, affordability, socio-economic need, viability gap, and the presence of anchor institutions or community hubs that can support sustained use. In urban areas, support should be more selective and tied to clearly demonstrated public-interest value or specific market failures. In high-footfall areas, allocation should reflect traffic density, strategic public utility, and the extent to which public support is needed to ensure continuity and performance.

Brazil's small ISPs and WISPs shows that funding criteria should also consider the ability of smaller local providers to access credit, build backhaul, and sustain operations over time. Disbursement should be outcome-based. Milestones such as site readiness, service activation, uptime, quality metrics, usage, and sustained operation over time are more meaningful than deployment numbers alone.

Q12. Is the lack of adequate and reliable last-mile connectivity a critical constraint for the proliferation of Public Wi-Fi in the country? If yes, what specific measures may be considered by the Central Government, State Governments, and local bodies to address the last-mile constraints? Please provide your response in detail with justification.

Yes, inadequate and unreliable last-mile connectivity is a critical constraint for Public Wi-Fi proliferation in India. Even where demand exists, poor backhaul availability, limited fibreisation, and inconsistent network quality can undermine both service reliability and the economics of hotspot

operation. Public Wi-Fi cannot scale effectively unless the underlying connectivity layer is affordable, robust, and widely available.

At the Central Government level, the priority should be to accelerate fibre rollout, expand backbone and distribution networks such as BharatNet, promote infrastructure sharing, and support technology-neutral backhaul options where fibre is not immediately feasible. Fibre should be adopted wherever practical, because it offers the most reliable and scalable foundation for Public Wi-Fi.

In addition, licence-exempt access can also enable and facilitate backhaul options, including fixed wireless access and standard power deployments, where these can provide a practical alternative to fibre in the near term. Satellite and other alternative backhaul solutions should be used in locations where fibre deployment is not commercially or operationally feasible in the near term.

At the State Government level, the focus should be on removing implementation bottlenecks, coordinating fibreisation with state programmes, and supporting timely permissions and utility coordination. Local bodies should support site access, local permissions, and alignment between backhaul works and community-level deployment needs.

Q13. Is there a need for the Government to provide funding for provisioning of last-mile connectivity in the uncovered or underserved areas for Public Wi-Fi networks? If yes, which funding option is best suited in the Indian context, and what should be the criteria for rural, urban, and high footfall areas, respectively? Please provide your response in detail with justification.

Yes, Government funding is needed for last-mile connectivity in uncovered and underserved areas. In many such locations, market-led investment alone will not be sufficient because deployment costs are high, traffic volumes are low, and the commercial case is weak.

The most suitable approach in India would be targeted, technology-neutral, and outcome-based funding for last-mile connectivity. Universal service support, competitive grants, or viability-gap funding may all be appropriate depending on the location and delivery model. The framework should support the most suitable technical option for local conditions rather than prescribe a single technology.

Rural and remote areas should receive the strongest direct support because the degree of market failure is greatest there. Urban areas should receive more selective support limited to clearly demonstrated gaps or public-interest cases. High-footfall locations should rely primarily on private or mixed-finance models, with public funding used only where necessary to secure continuity, public utility, or interoperability.

Q14. Are there any RoW challenges faced by service providers in accessing public places or street furniture to install Public Wi-Fi hotspots? If yes, details may be provided along with suggestions for improvements. Please provide your response in detail with justification.

No comment.

Q15. What facilitative roles can State Governments play in accelerating Public Wi-Fi deployment across rural, urban, and high-footfall areas, respectively? Should States consider deploying Public Wi-Fi networks at the municipal and gram panchayat level? Please provide your response in detail with justification.

State Governments can play a critical facilitative role by acting as coordinators, enablers, and implementation partners. Their importance arises from the fact that many of the practical barriers affecting Public Wi-Fi, including site access, permissions, backhaul coordination, and alignment with development programmes, are handled most effectively at the state and local level. The DSA has observed that in several countries, the involvement of State Governments has, in certain cases, facilitated deployment and improved sustainability by helping to coordinate permissions, access to public assets, and alignment with local development priorities.

In rural areas, States should support last-mile connectivity, simplify permissions, align deployment with public-service delivery, and make anchor institutions available where appropriate. In urban areas, they should provide access to municipal assets and integrate Public Wi-Fi into smart city, mobility, and digital governance programmes. In high-footfall areas, they can coordinate with local bodies and private partners to support reliable, well-managed deployment in public venues and transport environments.

Yes, States should actively consider deployment at the municipal and gram panchayat level. These institutions are often best placed to identify local connectivity gaps, support site availability, and ensure local responsiveness, provided implementation is backed by common standards, guidance, and funding support.

Q16. Should the State Government need to take initiatives to improve the availability of last-mile connectivity for Public Wi-Fi networks? If yes, what measures can incentivise States/municipalities to undertake city- and town-level fiberisation to ensure Public Wi-Fi network proliferation? Please provide your response in detail with justification.

State Governments could take proactive initiatives to improve last-mile connectivity for Public Wi-Fi networks. City- and town-level fibreisation is essential not only for Public Wi-Fi but also for the broader digital ecosystem, and many of the relevant enablers sit within state and local administrative control. The DSA supports a wide ecosystem that promotes competition and sustainability. In that context, greater involvement of State Governments and local bodies can help facilitate coordination, improve implementation, and support the long-term sustainability of last-mile connectivity projects.

States and municipalities can be incentivised to undertake fibreisation through streamlined approvals, standardised access to ducts and corridors, better RoW processes, infrastructure sharing, and alignment of fibre projects with smart city and local digital development programmes. Public-private partnerships can further mobilise capital and expertise where public funding alone is insufficient.

Q17. What facilitative roles can local bodies play in accelerating the deployment and sustainable operation of Public Wi-Fi networks in rural and urban areas? Please provide your response in detail with justification.

Local bodies are essential to both deployment and sustainability because they are closest to communities and best positioned to coordinate implementation on the ground, including municipal permissions, site access, and alignment with local service delivery needs. They can identify priority sites, make public assets available, simplify local clearances, and align deployment with community facilities and development needs.

They also play an important role in demand generation. Awareness campaigns, digital literacy efforts, local-language onboarding support, and integration with local e-governance or public-service programmes can improve user adoption and trust.

For long-term sustainability, local bodies can help create local support ecosystems by involving

entrepreneurs, cooperatives, schools, and civil society organisations, and by helping monitor service quality and operational issues. Their role is especially important in smaller towns and rural areas, where local coordination often determines whether deployment succeeds in practice.

Q18. What regulatory or policy incentives, schemes or programs are required to promote active participation of TSPs and ISPs in Public Wi-Fi deployment? Please provide your response in detail with justification.

TSPs and ISPs are central to Public Wi-Fi deployment because they provide backhaul, network capability, and service integration. Their participation, however, is often constrained by high deployment costs, uncertain returns, fragmented local approvals, and limited commercial incentives in harder-to-serve areas.

Regulatory and policy incentives should therefore focus on lowering costs and improving commercial visibility. Infrastructure sharing, easier access to public assets, simpler compliance, and more predictable permissions would make deployment more attractive. Targeted incentives in rural and underserved areas, including viability-gap support or performance-linked assistance, may also be needed where commercial returns are weak.

The policy framework should also position Public Wi-Fi as complementary to mobile and fixed broadband rather than as a separate or competing layer. Better Wi-Fi integration, traffic offload opportunities, and technology-neutral rules can help make participation more attractive for TSPs and ISPs.

Q19. What regulatory or fiscal incentives, schemes or programs may be required in the provisioning of bandwidth and backhaul for Public Wi-Fi networks? Please provide your response in detail with justification.

Policy relating to bandwidth and backhaul should focus on affordability, reliability, and competition, because backhaul is a core enabling input for Public Wi-Fi deployment and sustainability. Public Wi-Fi is difficult to scale where wholesale bandwidth costs are high, access to transport infrastructure is limited, or providers must rely on a narrow set of upstream options.

Important measures include lower and fairer wholesale bandwidth costs, open-access backhaul, infrastructure sharing, faster approvals, and support for fibre as well as alternative solutions such as microwave and satellite where appropriate. In commercially unviable areas, fiscal support or viability-gap mechanisms may be necessary to make backhaul investment more attractive.

The broader policy objective should be to create a backhaul environment that supports scale, sustainability, and provider diversity.

Q20. What measures can be adopted to incentivise private enterprises, commercial establishments, shop owners, community institutions etc. to install public Wi-Fi hotspots? Please provide your response in detail with justification.

Private enterprises, commercial establishments, shop owners, and community institutions are more likely to host Public Wi-Fi if participation is easy to manage and offers visible value. Policy should therefore combine financial incentives, operational simplicity, and commercial or social benefits for hosts.

Possible measures include tax incentives, installation support, reduced equipment costs, simple onboarding, standardised technical requirements, and plug-and-play partnership arrangements with

PDOAs or other service providers. Hosts are also more likely to participate where Public Wi-Fi can support retail engagement, local visibility, digital service delivery, or other venue-specific benefits.

Recognition-based incentives, official participation programmes, or digital inclusion branding may also help broaden uptake, particularly among public-oriented institutions and smaller establishments.

Q21. Is there a need to strengthen the role of public or private entities as system integrators for the deployment of Public Wi-Fi networks? If yes, what policy or institutional support may be required? Please provide your response in detail with justification.

Yes, the role of public and private system integrators should be strengthened. Public Wi-Fi deployment requires coordination across hardware, backhaul, onboarding, billing, security, network management, and interoperability, and many smaller operators or institutions do not have the capacity to manage these layers independently.

System integrators can reduce complexity, improve reliability, and support multi-site deployment, especially where multiple stakeholders are involved. Their role can be particularly valuable in high-footfall, institutional, or shared-infrastructure environments.

Policy and institutional support should encourage open, vendor-neutral standards, common APIs, clear interoperability requirements, and light-touch accreditation or recognition mechanisms. The objective should be to benefit from integration expertise without creating closed, gatekeeping structures.

Q22. Are users facing challenges in the authorization and authentication procedures for accessing Public Wi-Fi Networks? If yes, how can authorization and authentication processes be simplified while ensuring security and compliance? Please provide your response in detail with justification.

No comment.

Q23. Is there a need for a centralized platform for authentication and payment systems in the Public Wi-Fi ecosystem? If yes, which entity is best suited for its implementation and management? Please provide your response in detail with justification.

No comment.

Q24. What steps are required to achieve interoperability and seamless roaming among Public Wi-Fi networks? Should inter-hotspot roaming be made mandatory, and if yes, should a super-aggregator need to be introduced to facilitate it? Please provide your response in detail with justification.

No comment.

Q25. What monetisation models are most appropriate for rural, urban, and high-footfall locations, respectively? Please also suggest any additional monetisation models that may be suitable in the Indian context. Please provide your response in detail with justification.

Different deployment environments require different monetisation models. Rural deployments are unlikely to be sustained primarily through direct user fees and will depend more on shared-value

approaches such as community access arrangements, anchor institutions, local entrepreneurship, public-interest support, and partnerships with schools, health facilities, or local government service points.

Urban deployments can support broader commercial models, including advertising-supported access, subscription plans, venue partnerships, managed Wi-Fi services, retail-linked offerings, premium tiers, and enterprise solutions. High-footfall locations are particularly well suited to hybrid models involving sponsorship, venue partnerships, advertising, tourism-related services, enterprise connectivity, and smart city integration.

Additional models suitable in the Indian context could include bundled services, anchor-demand arrangements, and public-private partnerships. The key policy point is that long-term sustainability will depend on diversified revenue streams rather than reliance on end-user access charges alone.

Q26. Please provide any additional comments, observations, or suggestions related to the proliferation of Public Wi-Fi in the country, including any potential issues or considerations that may not have been covered in the sections above. Please provide your response in detail with justification.

Public Wi-Fi should be treated as a strategic part of India's digital connectivity ecosystem.

A key forward-looking priority is future-ready, technology-neutral regulation. Public Wi-Fi policy should support advanced standards such as Wi-Fi 6E and Wi-Fi 7 and ensure that adequate licence-exempt spectrum, including the upper 6 GHz band, is available to support higher-capacity deployments in dense environments.

Public Wi-Fi will also scale more effectively if the ecosystem is built around open systems, affordable backhaul, sustainable business models, and meaningful public-private collaboration. It should also be viewed as an enabling layer for emerging digital applications, including AI-enabled services, because it supports higher-capacity data exchange and resilient connectivity across a wide range of use cases.

If these foundations are put in place, Public Wi-Fi can play a much larger role in digital inclusion, education, healthcare, commerce, public service delivery, and smart city development.

****