REPUBLIC OF THE GAMBIA

Public Utilities Regulatory Authority

Public Consultation on Infrastructure Sharing

September 2023

TABLE

1 INVITATION FOR COMMENTS ON INFRASTRUCTURE SHARING REGULATIONS

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The Public Utilities Regulatory Authority (PURA) is in the process of reviewing Infrastructure Sharing Regulations. The purpose of the review is to ensure fair rate of return for investors, rapid deployment of broadband services in both urban and rural Gambia, promotion of healthy competition amongst firms, sustainable and progressive entry of new firms into the market especially in the fixed broadband segment and proliferation of new services and innovative means of ensuring last mile access.

Pursuant to Section 4 of the Information and Communications Act (2009), the Authority hereby invites views and comments from Licensed Service Providers/ consumers of communications services and the general public on Infrastructure Sharing Regulations.

The public consultation begins on **4th September 2023 and ends on 23rd September 2023.**

All responses/comments should be electronically transmitted as e-mail attachments, in Microsoft Word format to [aminatta.kah@pura.gm].

All respondents are requested to complete a response cover sheet (see Page 4).

It would be helpful if your response could include comments on the sections of the document you agree/disagree with.

Confidentiality

In furtherance of transparency and openness, the Authority shall consider all responses as non-confidential; accordingly, all submissions shall be published on our website, www.pura.gm, on receipt.

Issued by:

Director General, PURA

September 2023

Progressus Corporation

Cover Sheet for Response to PURA Public Consultation on Infrastructure Sharing

BASIC DETAILS Name of respondent: Representing (self or organisation/s): Address:
DECLARATION I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on PURA's website, and I authorize PURA to make use of the information in this response to meet its legal requirements. If I have sent my response by email, PURA can disregard any standard e-mail text about not disclosing email contents and attachments. Name : Signed (if hard copy)

2 INFRASTRUCTURE SHARING FACTS

2.1 Infrastructure Sharing remains low in The Gambia

Infrastructure sharing generally covers two separate subjects: passive infrastructure and active infrastructure. The present consultation concerns only passive infrastructure sharing, which encompasses:

- Site mutualization between operators, which covers sites, civil engineering, technical premises and utilities, masts and towers, power supply, air conditioning, etc.
- Access to dark fiber from alternative infrastructure operators.
- Access to poles and ducts in the last mile.
- Access to dark fiber in the last mile.
- Spectrum sharing.

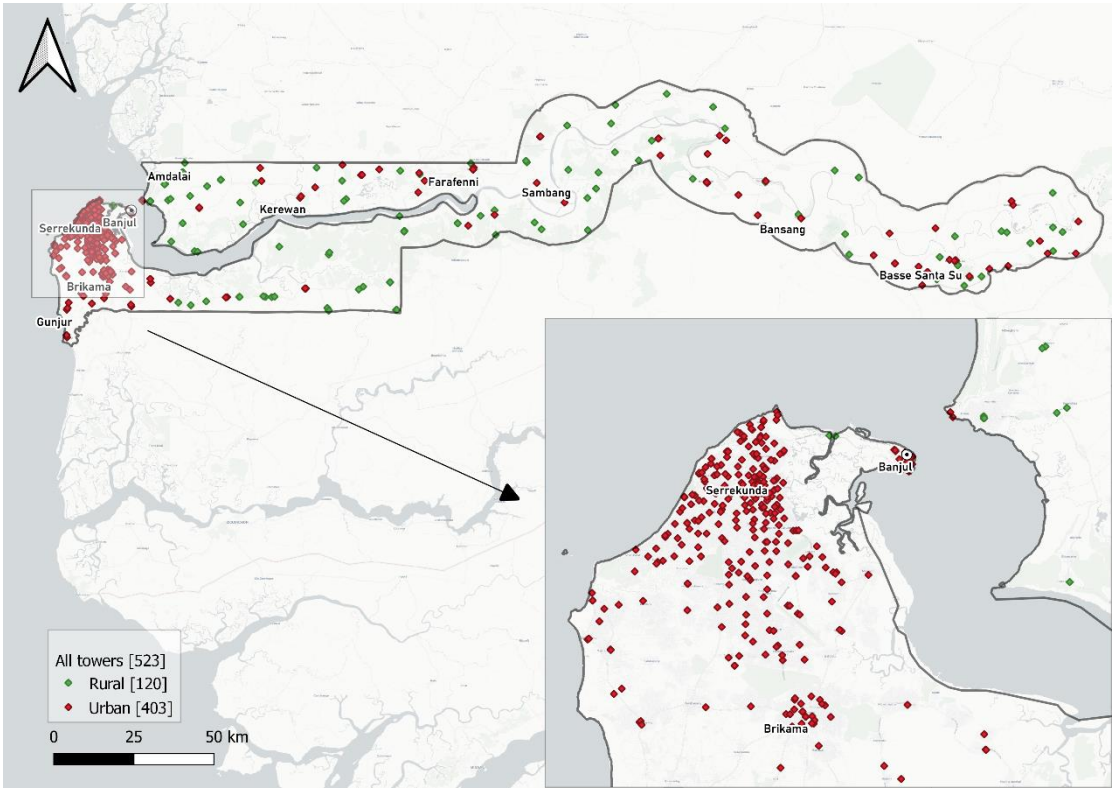
The analysis of infrastructure sharing in The Gambia reveals **a relatively low level** of infrastructure sharing, with **only 23% of the total pylons being either shared or rented.** While some operators are actively engaging in sharing arrangements, there is still significant room for improvement in fostering greater collaboration among telecom companies.

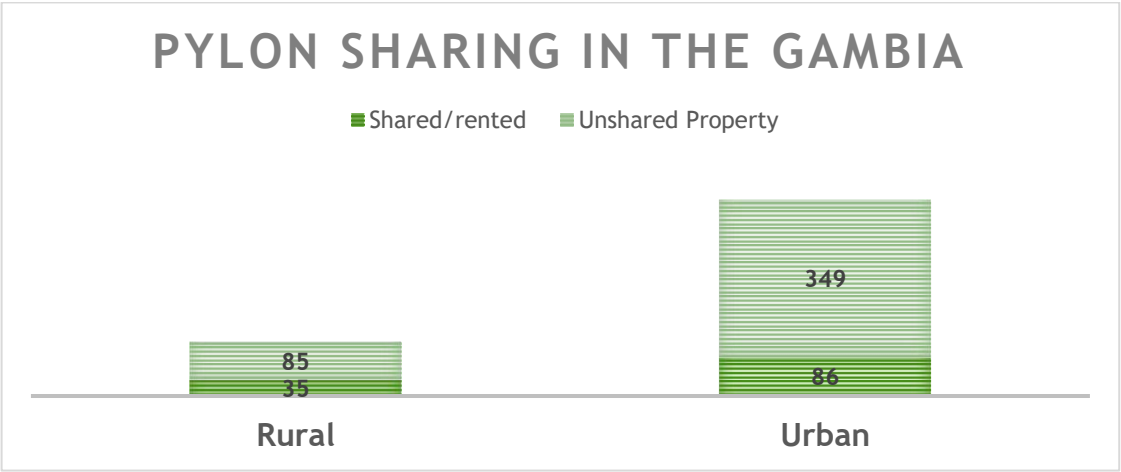
Moreover, there is a significant difference between rural and urban zones. Out of the total 523 pylons in the country, **a significant majority of 435 pylons (approximately 78%) are deployed in urban zones, while the remaining 120 pylons (approximately 22%) serve rural areas**.

In the rural zones, infrastructure sharing is relatively limited, with only 35 pylons (approximately 29% of the total rural pylons) being either shared or rented.

On the other hand, in the more densely populated urban zones, infrastructure sharing is somewhat higher. Approximately 86 pylons (approximately 24% of the total urban pylons) are either shared or rented.

The relatively low percentage of shared pylons in both rural and urban areas indicates that there is potential for operators to explore more extensive infrastructure sharing initiatives.





2.2 Infrastructure Sharing could foster the development of the broadband market

Considering the current status of the fixed and mobile broadband services in The Gambia, PURA estimates that Infrastructure Sharing, both in the fixed and mobile markets, could foster market development. In fact:

- Despite a significant growth (CAGR: 13%), with 2,5 million mobile lines the penetration rate 52%) remains low in comparison of other countries in the region. Likewise, the coverage of mobile networks seems also to be low in comparison of the other countries in the region, with only 70% of the population covered by a mobile network.

- The concentration of the broadband mobile market has increased during the last years, indicating that the competition may be decreasing, as expressed by the HHI index[1].

- Though mobile users' data consumption has reached 2.0 GB per month per subscriber in 2022, the average price per GB in The Gambia is at the top end of the regional average.

- The fixed Internet market, although much smaller in terms of subscriber numbers than mobile Internet (10,885 subs at the end of 2022), has seen significant growth (CAGR: 18%). However, The Gambia remains far from the top regional countries in terms of penetration rate.

2.3 International experience shows the importance of Infrastructure Sharing

In Nigeria, the sharing of passive infrastructures is encouraged by the regulatory authority. The NCC published in 2009 guidelines concerning the construction and installation of telecommunications masts where it prohibits the installation of towers exceeding 25 m in height in residential areas. This new provision has strengthened the sharing of passive infrastructure in the country.

In Ghana, passive infrastructure sharing is encouraged by the regulatory authority and was reinforced after the temporary ban imposed in 2010 by the Ministry of Environment, Science and Technology on deploying new towers.

In Zambia, sharing is not only done at the level of telecommunication operators. Operators of alternative infrastructures (power utilities in particular) also offer their optical fiber/pylons/ducts, etc.

In France, ARCEP has implemented regulations where it obliges national operators to welcome new entrants to use their own infrastructures in order to promote healthy competition in the telecommunications market.

In Togo, the telecommunications operators are required to publish their interconnection and infrastructure access catalog annually, which will then be validated by the regulatory authority. It must contain, among other things, information related to co-location sites (types of infrastructure, availability, access conditions for competing operators to premises, etc.).

[1] The Herfindahl index (also known as Herfindahl–Hirschman Index, HHI, or sometimes HHI-score) is a measure of the size of firms in relation to the industry they are in and is an indicator of the amount of competition among them. HHI is calculated by squaring the market share of each competing firm in the industry and then summing the resulting numbers

In Benin, co-location is mandatory for dominant operators who are specially required to publish detailed information on infrastructure. A database has been put online as part of ARCEP's 2018-2021 strategic plan to better frame the subject of sharing[2]. This platform makes it possible to publish in real time information relating to infrastructures with capacities that can be shared between operators.

In Benin, Ivory Coast, Burkina Faso, Mali, Mauritania, Niger and Senegal, the Reference Offers of the operators include technical and financial provisions to access to towers and sites.

Access to ducts and to the last mile fiber optic is now a strict obligation with detailed regulatory provisions for technical and financial aspects in most European countries and Morocco.

[2]https://arcep.bj/wp-content/uploads/2018/06/Plan-Strat%C3%A9gique-ARCEP-BENIN-2018-2021.pdf

3 THE ENVISAGED FRAMEWORK FOR INFRASTRUCTURE SHARING

3.1 Infrastructure sharing policy

3.1.1 Focus areas

3.1.1.1 Sites and towers

Sharing towers and sites is very common in many countries, with also the presence of regulated offers for the access to sites and towers.

In addition, tower sharing is important when developing the networks in rural areas and allows to facilitate and accelerate the deployment of networks, reduce the costs and limits the negative environmental effects.

Moreover, the technical analysis has shown that only 23% of the total pylons are either shared or rented, which is a relatively low level. While some operators are actively engaging in sharing arrangements, there is still significant room for improvement in fostering greater collaboration among telecom companies.

Therefore PURA envisages to encourage the tower and site sharing, in particular for the new sites.

In order to ensure nondiscrimination and fair competition, access prices should be cost oriented and approved by PURA prior to their publication by the operators.

3.1.1.2 Last mile fiber optic

The regulation of last mile fiber is increasing in a number of countries, in order to foster the development of fixed broadband, ensure fair competition, and prevent abuse of dominant position.

The regulation of last mile fiber optic is usually done by imposing obligations to the operators that have already deployed FTTH networks, consisting in providing a reference access offer for passive access to the fiber and for VULA access. Prices should be symmetric and regulated by PURA.

3.1.1.3 Ducts

The issue of duct sharing is similar to last mile fiber optic: using existing ducts is an efficient way to accelerate the deployment of access networks and reduce costs. In a similar way to fiber optic, the benchmark shows that there is a clear movement of regulator to impose duct sharing obligations to dominant operators, with a publication of a detailed reference offer.

3.1.2 Regulatory principles

The infrastructure sharing regulatory principles are focused on establishing proportionate remedies to the current situation. There should be no sharing obligations, in order to let the operators free to invest where and how they estimate appropriate, but to establish a framework encouraging the infrastructure sharing.

1) A broad definition of infrastructure which may be shared:

    a. Alternative infrastructure: any element of a network intended to receive network elements without itself becoming an active network element, such as pipes, masts, ducts, manholes, inspection holes, enclosures, buildings or access to buildings, installations linked to antennae, towers and poles, water towers. Cables, including dark fiber, and network elements used to supply water intended for human consumption are not reception infrastructures within the meaning of this article.

    b. Passive infrastructure: rights of way, masts, poles, antenna mast and tower structures, ducts, trenches, space in buildings, electric power, etc.

    c. Active infrastructure: complete network structures, switching centers, frequencies, radio network controllers, base stations, etc.

2) The obligation for all operators to study the possibility of sharing its passive infrastructures, such as conduits, pipes, ducts, sewers, building terraces, masts and radio tower sites, with other operators. In the event of sharing, PURA ensures that the conditions of sharing are non-discriminatory. Such sharing is the subject of an agreement notified to the PURA.

3) The obligation for any alternative infrastructure operator/ operator who owns or has control of an infrastructure which may be shared to:

    a. examine written requests for infrastructure sharing from other operators under objective, transparent and non-discriminatory conditions.

    b. answer to these requests in writing within a maximum of one month from the date of submission of the infrastructure sharing request.

    c. grant any reasonable sharing request under conditions, including financial, fair and reasonable except if the refusal is based on objective, transparent and proportionate criteria, such as:

        i. insufficient capacity of the infrastructure.

ii. national security, public safety, public health or personal safety.

iii. network integrity and security.

iv. the availability of other wholesale offers for access to the infrastructure.

d. negotiate in good faith the sharing conditions.

e. The cost of making the infrastructure available should be borne by the applicant.

4) A written infrastructure sharing agreement must be signed by the parties and specify the contractual terms and conditions agreed on by the parties. It is notified to the PURA which may request modification if the infrastructure sharing agreement is not in compliance with the principles of neutrality, transparency, non-discrimination and fair competition.

5) The obligation for operators who own an essential facility or have significant market power to publish a reference offer for infrastructure sharing.

6) The establishment and the maintenance of an up-to-date list of infrastructure available for sharing by PURA. This list should be updated by the PURA on the basis of information provided by operators and alternative infrastructure operators. The PURA will specify the frequency and format for supplying this information, so that it could be integrated into a geographic information system.

7) Operators should be required to prioritize the sharing of existing passive infrastructures before considering the deployment of a new infrastructure of their own.

8) The conditions for sharing must ensure that the infrastructure owner has a fair opportunity to recover its costs and shall take account of the impact of the sharing request on its infrastructure specific business plan, including the investments made by the infrastructure owner for the sharing.

9) The whole process of infrastructure sharing will be monitored by the PURA, in order to ensure that all operators comply with this provision, wherever technically possible.

10) The PURA will have a major role to ensure that infrastructure sharing works:

a. Dispute resolution: the PURA is the competent authority to settle any dispute related to infrastructure sharing, including with an alternative infrastructure operator.

b. Supportive action: the PURA encourage infrastructure sharing, advise local and regional authorities on infrastructure sharing matters.

c. Specify the content of infrastructure sharing reference offer.

In addition, there will be more binding provisions in the case where infrastructure sharing is necessary to meet general and user interests, in particular spatial planning, environmental protection or competition objectives. In this case, the PURA will impose specific obligations to share existing or future passive infrastructures, in particular poles, ducts and towers, particularly in low-density areas, in order to pool operators' infrastructure investments, and in areas where access to such infrastructures is limited. This could include the provision of a Reference Access offers, with cost-oriented prices approved by PURA.

In its assessment of the proportionality of any infrastructure-sharing obligations it would impose, the PURA will take the following factors into account:

- The technical and economic viability of shared use of the infrastructures envisaged.

- The degree of technical feasibility of sharing existing infrastructures, taking into account available capacity.

- The initial investment made by the owner of the resources, without neglecting the risks inherent in the investment.