UCC/UCUSAF affirmative action telecom infrastructure program launched in Agago

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Akeno West village in Lapono sub-county, Agago District, is today playing host to luminaries from the communications sector as Uganda Communications Commission (UCC) launches the Access Infrastructure Program in the area.

The Minister of ICT and National Guidance, Hon. Dr. Chris Baryomunsi, is expected to officiate at the launch event, which will witness the unveiling of one of the hundreds of telecommunication sites to be established across the country as part of a program that strategically provides coverage to areas considered economically unviable for licensed telecommunications operators.

The Access Infrastructure Program is implemented by the Uganda Communications Universal Service and Access Fund (UCUSAF), formerly the Rural Communications Development Fund (RCDF), which was created in 2002 as both a regulatory tool and a semi-autonomous ICT development entity.

Administered by UCC, the Fund's primary objective is to enhance access and usage of ICTs in unserved and underserved areas where the licensed telcos find it challenging to deploy because of commercial unviability of the said locations or services.

To identify beneficiary areas for infrastructure development, UCC uses a coverage mapping tool and reports

from Mobile Network Operators (MNOs) to identify sub-counties with less than 30% geographic 3G coverage. Coverage is determined by a signal strength of more than -90dBm (decibel milliwatts).
Determining an optimal site for wireless coverage involves precise triangulation of the target area. Strategic placement is critical, maximizing coverage while optimizing technical and financial resources, including spectrum utilization. Notably, a single mast can strategically cover multiple sub-counties.
Scope of this phase of the program

Sixty-three sites have been earmarked and provided for subsidy funding. Of the 63, 7 are fully constructed by Tower of Africa Uganda Limited (TowerCo) the infrastructure provider, and 4 are now operational. The 7 sites are Kasimbi, Nyambigha (Karugutu), Kyazirimu (Kyebando), Kagara (Kabuyanda), Lapono (Agago), Lyabana (Island), and Kyampangara (Kazo). Lapono, in Agago sub-county, is the site that is being launched today.

The anticipated subsidy cost for constructing the 63 sites is Shs 12 billion. This subsidy is allocated to various facets of the infrastructure rollout, encompassing expenses such as land acquisition, civil works, and complementary infrastructure. The funding is strategically distributed to ensure comprehensive support for the construction and enhancement of these sites, contributing to their practical functionality and extended coverage reach.

Once completed, the 63 sites will cover 42% of the total area of the 117 sub-counties identified. The goal is to complete up to 200 sites over the next five years.

The contracting process for this program follows a competitive bidding model among eligible entities (licensed operators). It is initiated by a call for proposals, and subsequently, the bids are rigorously and transparently evaluated based on the predefined Terms of Reference (TORs).

To ensure the subsidy trickles down to Mobile Network Operators, when evaluating the best bidder for the infrastructure subsidy, a critical clause in the Terms of Reference focuses on determining the rate at which the provider can charge telecom operators for utilizing the subsidized infrastructure. This rate is essentially the rental fee Mobile Network Operators pay for accessing the infrastructure. To incentivize infrastructure uptake by the operators, these rental fees are strategically set at the lowest level for an initial period of five operational years. This intentional approach encourages operators to embrace and actively utilize the subsidized infrastructure, fostering broader and more effective coverage.

UCUSAF programs
UCUSAF undertakes both demand-side and supply-side programs. The programs include ICT in Education, ICT for Persons with Disabilities, ICT for Agriculture, Digital Skilling, Internet Connectivity, Access Infrastructure, Youth Multimedia, Research Support, and Devices for Underserved Communities.

To boost ICT usage in economically challenging regions such as those hosting the 63 site locations, UCC employs various strategies to drive demand in those areas. The first area of focus is fostering the development of locally relevant content that resonates with the people in these areas, addressing their unique needs. Simultaneously, we ensure that essential public services are easily accessible through user-friendly government online platforms.

UCC has rolled out extensive ICT in Education and digital skilling programs, catering to diverse groups. The goal is to build a critical mass of individuals with essential skills to use ICTs effectively and safely, including mobile phones. Our impactful ICT in Education initiatives empower students, teachers, and various population segments. UCC/UCUSAF also distributes free smart devices to low-income communities, aiming not only to grant beneficiaries access to technology but also to integrate them into the broader digital landscape.

Program bottlenecks
- The implementation pace of this program faces challenges due to the non-economic viability of the designated unserved areas. Despite the availability of subsidies, licensed telecom operators are reluctant to issue infrastructure service requests, thus slowing down coverage.

- Complementary infrastructure - In most unserved and underserved areas, particularly remote regions, a crucial challenge lies in the absence of essential complementary infrastructure. These smaller, outlying locations tend to lack basic amenities such as access roads and grid electricity. The absence of these foundational elements not only hampers the speed of construction but also hinders the operational

efficiency of the masts once established. Recognizing and addressing these infrastructure gaps becomes imperative to ensure a smoother and more effective implementation process.

- Delays in obtaining inter-agency approvals and structural permits significantly impact on the infrastructure rollout. These agencies encompass those responsible for conducting environmental and social impact assessments, district local

governments, and entities overseeing structural planning approvals for civil works. The collective involvement of these entities in the approval process can introduce complexities that may impede the timely execution of infrastructure projects.

- Public resistance to infrastructure - In peri-urban underserved communities, there's a notable surge in public resistance to telecom infrastructure, primarily fueled by misinformation regarding health-related concerns associated with proximity to such infrastructure. Such resistance poses a challenge to initiatives aimed at enhancing network quality of service, especially amidst urbanization. To address this challenge, concerted efforts are being made to correct misconceptions through targeted awareness campaigns, ensuring that the public is accurately informed about the safety and health standards implemented in telecommunication infrastructure deployment.

- Sustainability considerations - A critical facet of responsible deployment involves managing end-of-life scenarios, e-waste, and other sustainability considerations, explicitly focusing on potential hazards associated with improper disposal, notably batteries in solar-powered sites. Proactive measures are essential to navigate the environmental impact and ensure deployment aligns with responsible and sustainable practices.

- Affordability and viability- Affordability plays a pivotal role in determining the commercial viability of masts in underserved areas. The accessibility and affordability of devices and services directly influence the uptake of services. Through ongoing demand-side initiatives, UCC/UCUSAF is actively working to increase usage. As usage grows, a noteworthy outcome is reducing the cost of ICT products

and services. This interconnected relationship ensures that affordable access enhances service uptake and contributes to the overall commercial viability of telecommunication infrastructure in underserved regions.

- Challenges in acquiring permits - Securing infrastructure permits for coverage in protected areas (game parks, forest reserves, and other gazetted areas) presents unique challenges, primarily related to cost considerations. The process can be financially burdensome, necessitating strategic engagement to explore incentivized costing approaches. This entails collaborative efforts to establish cost-effective measures that facilitate smoother permit acquisition, ensuring environmental preservation and expanding coverage to protected areas.

Appeal for support
There is need to streamline the approval processes for setting up telecommunications infrastructure. Support and collaboration are crucial to streamline the approval processes, making them more efficient for the agencies involved. This includes a call for enhanced coordination, reduced bureaucratic hurdles, and the implementation of streamlined protocols, ultimately expediting the approval timelines.

In addition, there is need for active support from all stakeholders through their different publics to advocate for the safety of telecommunications infrastructure and counter misinformation. This involves collaborative efforts to communicate the stringent safety measures in place, ensuring public confidence and dispelling any misconceptions regarding the safety and impact of telecommunication infrastructure.

Community engagement programs are essential to foster initiatives that engage local communities to enhance their understanding of the benefits and safety measures associated with telecommunication infrastructure.

Lastly, to meet the objectives of the Access Infrastructure Program there is need to create a platform for industry players to collaboratively address challenges, share best practices, and collectively work towards improving efficiency in infrastructure uptake and approval processes.