
The Impact of Internet Disruptions on Farmers in Sokoto State, Nigeria

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In Nigeria's Northwestern Sokoto State, farm workers grapple with geopolitical challenges, shifting climate realities, and economic turbulence. However, they now face a new, growing threat: a troubling rise in internet disruptions which threatens their ability to work in an increasingly digitally connected world.

Internet shutdowns have emerged as a concerning trend globally, affecting nearly every region but with a notable surge in Africa in recent years. Across the continent, internet users are contending with an increasingly fragile and often vulnerable internet ecosystem – one that can be turned off intentionally by governments or telecommunications providers, or that provides only intermittent and unreliable connectivity in infrastructure-challenged areas.

For farmers in Sokoto state, disruptions and outages are as frequent as they are diverse in form. Whether they come in the form of internet shutdowns – intentional disruptions of internet or electronic communications - or as a result of weak or underfunded systems, the unreliable nature of this increasingly essential resource threatens the livelihood and rights to participation of farmers and everyday citizens alike.

Through a survey of 100 farmers in Sokoto State conducted in January of this year, recently completed research sought to better understand how farmers navigate such internet disruptions and the tactics they employ to prepare for, address, document, and monitor their consequences on agricultural practices. The research, summarized in this blog post below, is intended to support a cooperative initiative among agricultural and digital rights organizations to grasp the essential resources and prerequisites for a robust response against these disruptions.

Connectivity in Sokoto State

Despite relatively limited internet infrastructure that residents note leads to intermittent connection for most residents of rural areas like Sokoto State, the agricultural community in this region has come to rely heavily on internet resources for information exchange, market access, and efficient farm management practices. This follows a broader trend in Nigeria and globally, where internet penetration rates continue to rise, driven in large part by the expansion of internet connectivity and provision of internet-connected devices in non-urban areas. This reality was reflected

clearly in the sample population that responded to the survey. Based on questions asking respondents to outline how and when they access the internet, the majority (54%) use the internet daily, and another 31% noted weekly or somewhat frequent use of the internet. Responses also reflect that a significant portion (70%) access the internet via mobile phones rather than wired connections.

Diving slightly deeper into such measures of connectivity, the research also asked questions to glean whether farmers were aware of internet disruptions and how they impact their ability to connect. When asked whether they have experienced internet disruptions, 76% of respondents noted that they were aware of shutdowns that have taken place in Sonoko State, with a plurality (36%) noting that they use social media to learn more about shutdowns.



Beyond broader connectivity trends, it is also important to understand the role that the internet plays for farmers. The research shows that modern farming is inextricably tied to the internet for both daily operations as well as continued education and development.

Specifically, farmers rely on digital connectivity for a host of reasons that are

essential to their business, ranging from access to videos online training them on modern agricultural practices to engagement with seed and fertilizer distributors, communication with prospective buyers, and, importantly, to track market prices for various goods to see how prices fluctuate in real-time.

The impacts of disruptions

Similar to individuals around the globe who rely on the internet for personal or professional use, farmers in this region face a litany of obstacles in the absence of reliable connections or in the event of an intentional disruption to service. As illustrated by findings from the survey, when the internet is disrupted, farmers lose access to many of the critical online marketplace and continuing education resources mentioned above. According to individuals consulted through this research, if a farmer is looking to make a sale of a crop or product, an internet outage could prevent them from determining the appropriate market prices in a volatile market and force them to sell at a rate far lower than the standard. This loss of funds is coupled with numerous other missed professional opportunities, as farmers as sellers cannot communicate with prospective buyers nor with distributors of essential products such as seeds, fertilizers, pesticides, and other supplies. Further, a lack of connectivity precipitates disruptions to the supply chain where distributors cannot easily regulate or track receipt or sale of goods. Survey respondents noted other challenges, including delayed or disrupted financial transactions and limited access to weather forecasts that impact crop management.

In assessing the scale of such disruptions, roughly two-thirds of respondents (67%) noted that such shutdowns severely or moderately impact their ability to farm effectively. Despite these challenges, a significant portion of respondents demonstrated resilience, employing coping strategies such as planning activities during known outage times and deploying VPNs to bypass blocking.

What is evident from this analysis is that even individuals in historically analog professions are increasingly reliant on internet connections to carry out their work and that, as such reliance grows, the impacts of disruptions grow with it.

Lessons from the study

Equipped with this data, we begin to understand the following.

First, while awareness of the existence and impact of disruptions is high, preparedness amongst this community remains low.

When asked whether they have plans in place to respond when the internet is disrupted, only 50% of respondents noted that they employ some kind of coping strategy. Amongst those who do, however, the strategies remain ad hoc and largely uncoordinated. Some (32%) noted that they use the time to plan offline, whereas a smaller portion (15%) noted that they turn to offline farming tools. Concerningly, amongst this group who note that they employ some kind of strategy, only 26% found those strategies to be helpful in maintaining business as usual.

One issue that emerged from the survey and conversations with farmers in the state were challenges in technically navigating,

circumventing, and responding to disruptions. Respondents noted challenges including limited access to helpful information (41%), difficulty using VPNs (25%), and insufficient resources (10%).

Second, farmers are eager to make their voices heard and to press for stronger protections.

Advocacy Assembly Respondents to the survey unanimously expressed a need for greater advocacy for uninterrupted internet access. Survey respondents similarly noted a high demand for trainings and technical support to remain connected, with a majority of respondents (54%) expressing desire for trainings on circumvention tools. One barrier to this kind of advocacy is a relative dearth of voices speaking about the issue on behalf of this group and the region more broadly.

Finally, that the issues faced in Sokoto State largely follow broader trends both throughout West Africa and globally.

Through a comprehensive needs assessment conducted in 2021, Internews noted that while the threat of shutdowns is high (58% of respondents expressed concern about existing or imminent shutdowns), advocates do not feel prepared to address them when they happen. Respondents in that global survey noted similar concerns that were raised by farmers in Sokoto State, namely that resource constraints, lack of coordination, and limited reach of circumvention tools lead to short-term efforts rather than impactful, long-term advocacy.

Looking ahead

The findings from this case put into focus not only the wide-ranging impacts of internet disruptions on farmers, but also the need

and opportunity for action moving forward. There is a clear desire amongst this population to **take a more active role in advocating for a more reliable internet**, and other cases globally would support the importance of their activism as a part of multisectoral, multidimensional approaches to advocacy and community-building. The unanimous call for advocacy signals a collective awareness of the significance of uninterrupted internet access.

Importantly, farmers like those in Sokoto State and elsewhere may play a crucial role as contributors or signatories to national campaigns that seek to hold government to account for shutting down or restricting internet access, and to press for laws that protect open access. As engines for economic growth in the country (agriculture accounts for roughly **24% of Nigeria's GDP**), this group can more effectively make the case for stronger protections in a manner that local, state, and national leaders may find more challenging to ignore.

Surveys like the one in this study stand as important windows into the lived experiences of everyday citizens that are key to stronger, more impactful evidence-based campaigns.

Beyond advocacy and awareness raising efforts, there is a **need to improve access to trainings to strengthen community preparedness and resilience in the face of internet disruptions**. This should include courses that tackle preparedness for shutdowns, such as trainings on how to use VPNs and other circumvention tools, as well as resources on who to contact when a shutdown occurs and the kind of network measurement data that should be collected to call attention to such incidents.

Finally, **continued research that explores the diverse and often underrepresented impacts of internet disruptions is required** to more accurately portray this issue as a potent threat to a vibrant democracy, rather than a niche concern.

The research, while specific to the Sokoto State, offers insights that extend far beyond regional boundaries, contributing to the broader dialogue on the intersection of internet access, agriculture, and human rights. It is our hope that these findings will bolster informed actions, fostering an environment where digital connectivity continues to be a catalyst for sustainable agricultural development.