



GHANA

Expanding rural coverage through infrastructure innovations

Key lessons

- Granular data is needed to assess the economic viability of infrastructure investments and strategically deploy sites in rural communities;
- Reducing tax levies and import duties has a significant impact on infrastructure innovations; and
- A close collaboration between governments/regulators and mobile operators is key to success.

Background

As of 2019, close to 5 million people lack access to 3G in Ghana, while over 23 million people are not covered by 4G yet¹ To help bridge the digital divide, the Ghana Investment Fund for Electronic Communications (GIFEC), Vodafone Ghana and the GSMA entered into a partnership to deploy innovative mobile internet connectivity solutions for unconnected rural communities.

1. GSMA Intelligence (2020): GSMA Intelligence database





How is Ghana improving coverage?

In support of efforts by mobile operators, the GSMA Innovation Fund is funding mobile network equipment vendors to deploy innovative solutions to expand connectivity in rural areas. The goal is to find new more affordable ways to roll out networks in rural areas, where costs can be prohibitive, revenue lower and logistics complex.. Vodafone Ghana will be testing and deploying these innovations on its network, while commercialising the sites. GIFEC, which has the mandate to make communication accessible, provides land for site coverage and assists in obtaining the necessary permits and government approvals. In addition, GIFEC has enabled tax and duty exemptions of up to 30 per cent for imported equipment, to encourage reinvestment and enhance coverage extensions.

Vendor partners were awarded up to £330,000 each for implementing solutions that suit challenging rural environments with low population density, difficult terrain or limited infrastructure, for example through low construction costs and high energy efficiency. The project focuses on those rural areas that currently lack connectivity but have economic potential. The selection process of areas to cover was conducted with analysis from the GSMA, using its Coverage Mapping tool.

The vendors will work in consortiums to deliver their solutions, and provide mobile internet coverage and services from Vodafone Ghana. At the end of the 18-month project, the mobile operators will take over the maintenance and operation of the sites.

Impact

The initiative shows that through multi-stakeholder collaboration coverage can be expanded in commercially challenging environments. Key to success is the resource commitment of each stakeholder, with the tax incentives enabling the initiative to grow beyond its initial scope, ultimately benefiting individuals who can now be provided with the opportunity to benefit from access to the mobile internet.