## Guinea-Bissau

This West African nation is hoping to overcome its lack of connection to undersea fibre-optic cable, driven by realization of the importance of ICT for achieving its new national development goals.

Mobile services: There are two GSM mobile operators: MTN, a subsidiary of the South African mobile group, which deployed its network in 2003; and Orange, a subsidiary of Senegal's SONATEL, which launched in 2007. The market is almost evenly split between the two. There was a third mobile operator, Guinetel, belonging to the incumbent, but it has ceased operations. One result of having operators backed by technically and financially strong mobile groups and the virtual absence of fixed-telephone communications is a high level of access. In 2014, 91 per cent of households had mobile telephones, one of the highest rates among LDCs, as well as within sub-Saharan Africa.<sup>216</sup> This includes 96 per cent in urban areas and 86 per cent in rural areas. Mobile-broadband has only recently been introduced. MTN launched 3G in 2015, with Orange launching both 3G and LTE the same year.

**Fixed services**: The incumbent operator is the Telecommunications Company of Guinea-Bissau (Guine Telecom). It was partly privatized in 1989, when 40 per cent was sold to Portugal Telecom. The Government retook control of the company in 2008, which is technically bankrupt and ceased operating in 2014. There is essentially no fixed line telephone network. Internet access is available through mobile-broadband or fixed wireless broadband using WiMAX. The mobile operators operate the limited national backbone. Orange has an advantage through its crossborder terrestrial fibre connection to Senegal to access SONATEL's undersea cables. Orange also has a microwave connection to Guinea to access the ACE cable. MTN relies on microwave and satellite connectivity. This resulted in duplicate infrastructure and the lack of open access to costbased international fibre connectivity, leading to high costs and lower affordability. Guinea-Bissau did not take the opportunity to connect to several new submarine cables deployed along the coast of West Africa. Guinea-Bissau and Eritrea are the only two sea-facing sub-Saharan African countries not to have a submarine cable landing station. There is an opportunity for Guinea to participate in the ACE Consortium with the revival of the World

Key indicators for Guinea-Bissau (2017)		Africa	World
Fixed-telephone sub. per 100 inhab.	0.0	0.9	13.0
Mobile-cellular sub. per 100 inhab.	77.1	74.4	103.6
Active mobile-broadband sub. per 100 inhab.	7.3	24.8	61.9
3G coverage (% of population)	44.6	62.7	87.9
LTE/WiMAX coverage (% of population)	40.6	28.4	76.3
Individuals using the Internet (%)	3.9	22.1	48.6
Households with a computer (%)	2.8	8.9	47.1
Households with Internet access (%)	2.3	19.4	54.7
International bandwidth per Internet user (kbit/s)	35.8	11.2	76.6
Fixed-broadband sub. per 100 inhab.	0.03	0.6	13.6
Fixed-broadband sub. by speed tiers, % distribution			
-256 kbit/s to 2 Mbit/s	20.6	38.7	4.2
-2 to 10 Mbit/s	45.8	37.2	13.2
-equal to or above 10 Mbit/s	33.6	24.1	82.6

Note: Data in italics are ITU estimates. Source: ITU (as of June 2018).

Bank's West Africa Regional Communications Infrastructure Program (WARCIP). This includes constructing a domestic landing station and deploying a domestic fibre-optic network.

**Government policy**: The country's national strategy, Terra Ranka (2014), identifies digital services as a catalytic sector for national economic development. It calls for elaborating a Digital Economy Plan in collaboration with the private operators to define coverage, access international connectivity, enhance the legal and regulatory framework to adjust to sector evolution, attract investment, develop broadband and create a safe digital environment. It also calls for privatizing the incumbent and strengthening the regulator. The Ministry of Transport, Communications and ICT is charged with implementing the digital economy goals of the Terra Rank strategy. The National Regulatory Authority for Information and Communication Technologies replaced the Institute of Communications of Guinea-Bissau following the adoption of the 2010 Telecommunication Law.

**Conclusion**: Whereas Guinea Bissau has one of the highest rates of household mobile penetration in sub-Saharan Africa, Internet access and affordability remain a concern given the lack of access to undersea fibre-optic cable. It is now hoping to make up for that, driven by the importance of ICTs for achieving its Terra Ranka development goals.