

# **Low-Band 5G Spectrum for Digital Equality**

Low-band spectrum is the cornerstone of digital equality and a driver of broad and affordable connectivity. It is a crucial national asset that can build bridges towards digital inclusion. WRC-23 is an opportunity to enhance low-band capacity to deliver 5G in all communities.

### Why low-band spectrum?



Digital equality



connectivity



Rural economic growth

#### 470-694 MHz at WRC-23 can allow:



Long-term planning of spectrum below 1 GHz to help 5G lower the digital divide.



Development of sub-1 GHz spectrum for better rural and in-building connectivity.



**Development of video content** distribution mechanisms going into the 2030s.

Adults living in rural areas are

less likely than those living in urban areas to use mobile internet

Average 5G network population **coverage** (Q4 2022)

Countries using 600 or 700 MHz

Countries not using 600 or 700 MHz

The contribution to global GDP from low-band 5G in 2030

With 600 MHz

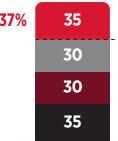
130bn



The additional capacity in the 600 MHz band leads to:

- 1 A 33% reduction in the cost of extending 5G to rural populations
- 2 Improvement in rural speeds of 30-50%



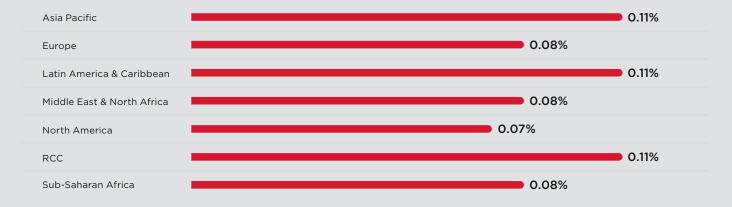


band **Current 95 MHz DL** spectrum

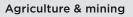




### Regional breakdown of the GDP contribution generated by low-band 5G in 2030



# Estimated global contribution of low-band 5G spectrum to GDP, by sector, 2030







Finance



ICTs



\$10bn

Transportation & construction



Services



ഫ് **\$22bn** 

**Public administration** 



Manufacturing



### Benefits of low-band spectrum:



Reduce cost of covering roads for 5G-connected vehicles



Improve digital equality with 5G speed in rural areas



Consistent speeds: deep indoors and in hardto-reach urban areas



Improve the business case for 5G fixed wireless access (FWA)



Enable smart agriculture, notably precision farming



5G capacity solution for areas where mid-bands do not reach

## **Enhancing the social impact of mobile**



**Poverty** reduction



Well-being



Education





**Employment** 



**Environment** and climate change



All data and further analysis found at: www.gsma.com/spectrum/resources/low-band-5g-spectrum-benefits/





Read more about WRC-23 here: www.gsma.com/spectrum/wrc-series/