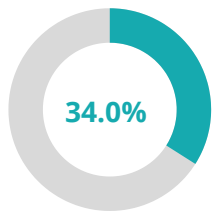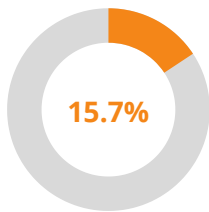# NEPAL DIGITAL CONNECTIVITY BRIEF
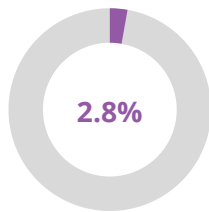
A4AI

Country overview

With 34% of its population using the internet, Nepal still faces massive challenges to connect everyone in the country. Mobile internet penetration stands at 15.7%, and fixed broadband penetration at 2.8%. The gender gap in internet use is considerable at 59%.
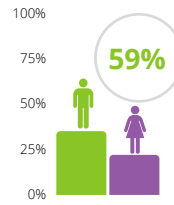
34.0%

ONLINE POPULATION
Source: ITU, 2019

15.7%

MOBILE BROADBAND PENETRATION
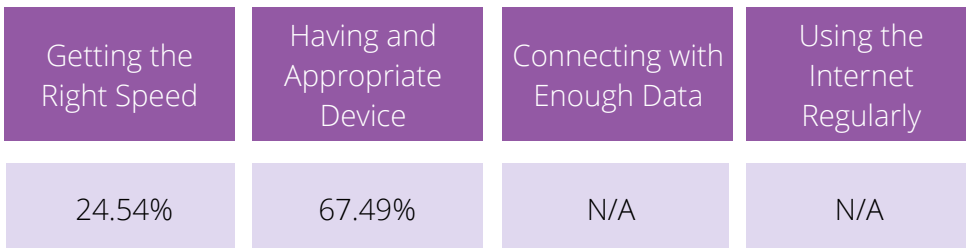Source: A4AI from GSMA, 2020

2.8%

FIXED BROADBAND PENETRATION
Source: A4AI from ITU, 2018

59%

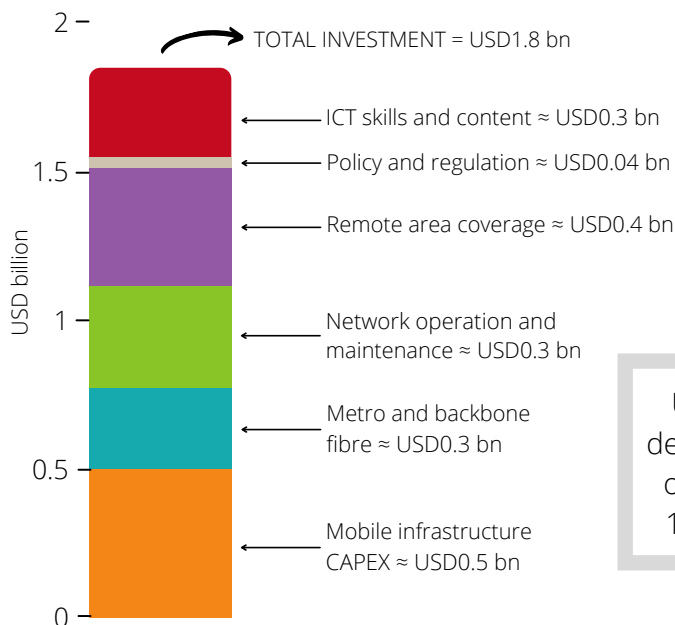**INTERNET USE GENDER GAP**
Source: A4AI from EIU, 2020

Dimensions of Meaningful Connectivity

Getting the Right Speed	Having and Appropriate Device	Connecting with Enough Data	Using the Internet Regularly
24.54%	67.49%	N/A	N/A

Source: GSMA, 2020

Meaningful connectivity to the internet implies having access to an appropriate device, enough data and speeds, and using the internet every day. Most people in Nepal do not have access to speeds compatible with a 4G connection, but 67% have access to smartphones. This means that many Nepalize own smartphones, but a significant percentage of these may not be connected to a data plan.

Investments needed by 2030

TOTAL INVESTMENT = USD1.8 bn

ICT skills and content ≈ USD0.3 bn

Policy and regulation ≈ USD0.04 bn

Remote area coverage ≈ USD0.4 bn

Network operation and maintenance ≈ USD0.3 bn

Metro and backbone fibre ≈ USD0.3 bn

Mobile infrastructure CAPEX ≈ USD0.5 bn

USD billion

Universal access is defined based on 90% of the population of 10 years and above

Source: A4AI from ITU, GSMA, A4AI, operator and regulator, 2019

ICT Affordability
AS A % OF GNI P.C.

MOBILE

1GB = 2.55%

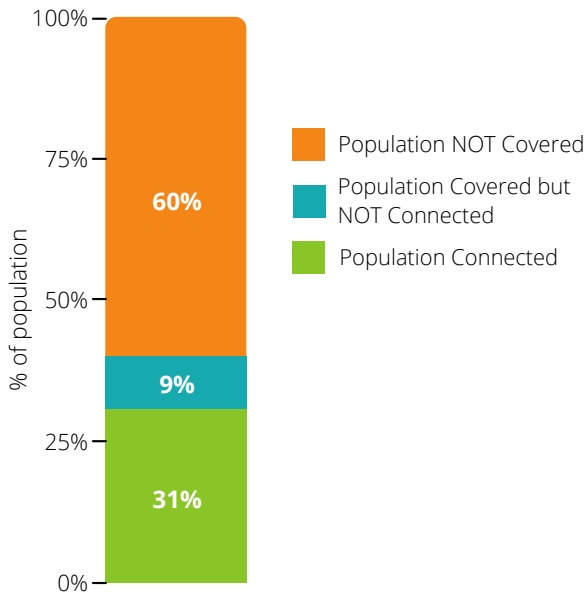**2GB = 2.55%**

5GB = 4.91%
Source: A4AI, 2020

FIXED

5GB = 2.00%
Source: A4AI & ITU, 2020

Nepal has made good progress to to improve affordability of data services in the last years, however, it has not met the affordability target established by the United Nations Broadband Commission, as 1GB still costs 2.55% of monthly average income in the country. 5GB of fixed broadband is at 2%, while 5G of mobile broadband represents 4.91% of the monthly average income. The country ranks 33rd (out of 72 countries surveyed) on A4AI's Affordability Drivers Index (ADI).

Investments needed by 2030

% of population

- 100%
- 75%
- 50%
- 25%
- 0%

60% Population NOT Covered
9% Population Covered but NOT Connected
31% Population Connected

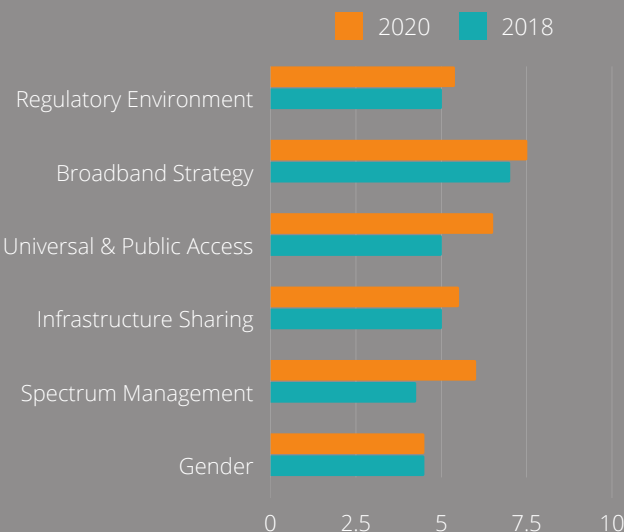Source: A4AI from GSMA, Xalam and UN population data, 2019

Only around 40% of the population in Nepal is in areas with internet coverage (see figure), and 31% of the population is connected to 4G connections. Based on A4AI's analysis of investment requirements to achieve the 2030 target of universal access, Nepal will need to mobilize close to $2billion to connect its population. We note that mobile infrastructure and remote area coverage are the areas with the highest investment needs, followed by fiber deployment, network operation and maintenance, costs for building necessary ICT skills and relevant content, as well as policy and regulatory related upgrades.

THE ADI
AFFORDABILITY DRIVERS INDEX

The ADI is a tool developed by A4AI to assess how well a country's policy, regulatory, and overall supply-side environment is positioned to lower industry costs and ultimately create more affordable broadband. ADI scores countries across two main policy groups: Infrastructure and Access

Policy Scores

2020 2018

- Regulatory Environment
- Broadband Strategy
- Universal & Public Access
- Infrastructure Sharing
- Spectrum Management
- Gender

0   2.5   5   7.5   10

2020 Affordability Drivers Index (ADI)

ADI Score = 58.17

Access Score = 55.97

Infrastructure Score = 54.58

Source: A4AI, 2020

Policy Highlights

Universality and public access
Nepal has leveraged their Universal Service and Access Funds to extend connectivity into new areas. Community networks are also supporting the connectivity of parts of the population.

Broadband Strategy
The National Broadband Development Program and the Digital Nepal framework have shown promising policy practices.

Spectrum management
Policy contained specific timelines for spectrum related improvements, e.g. releasing spectrum via auctions, and refarming spectrum.

Regulatory environment
Some institutional issues suggest that the role of the regulator as a neutral and impartial authority is compromised

Infrastructure sharing
While progress has been made, some stakeholders criticize the lack of progress in regards to rights of way guidelines and other infrastructure sharing provisions.

Gender
No concrete policy steps have been implemented in regards to addressing gender gaps in access and connectivity.