

Internet access should not be a luxury. Not only a pathway to information, communication, and economic opportunity, the internet is increasingly necessary to access basic commercial and public services. As more of the world becomes digital, those unable to connect will be left behind. It is therefore crucial that everyone has the opportunity to get online.

For the 50% of the world unable to connect, the greatest barrier remains affordability. Across Africa, the average cost for just 1GB data is 7.12% of the average monthly salary. In some countries, 1GB costs as much as 20% of the average salary — too expensive for all but the wealthiest few. If the average US earner paid 7.12% of their income for access, 1GB data would cost USD \$373 per month! This gulf underlines the challenge we have to bridge the global affordability gap and ensure that everyone has affordable internet access.

The Affordability Report looks at the policy progress lowand middle-income countries are making to support affordable internet access. This year it explores how governments can shape healthy, competitive markets¹ supported by public access solutions to deliver <u>affordable</u> and meaningful connectivity to everyone.

Competitive markets lead to affordable internet access

The Affordability Drivers Index (ADI) measures government policies that impact internet affordability. This year's index shows that:

- Low-income countries made impressive strides towards affordability: In this year's ADI, low-income countries increased their scores three times as much as middle-income countries, on average. As a group, low-income countries saw a 15.6% increase in their ADI score from 2018 to 2019: this compares to 4.5% and 5.1% for lower-middle and upper-middle-income countries, respectively.
- Competition is core to successful broadband markets: Our analysis shows that healthy market competition leads to more affordable internet access, giving consumers choices and adding competitive pressure to lower prices. Conversely, a lack of competition is one of the biggest barriers to affordability. Our analysis estimates that consumers in countries with consolidated markets pay USD \$3.42 more per GB for mobile data than those in similar countries with healthy markets. Policymakers and regulators must work to encourage competition and support new entrants to enter their markets.
- Public access options are vital to strengthening markets: While promoting competitive markets should be governments' top priority, competition only goes so far. Markets should be complemented with public access options such as free public Wi-Fi and telecentres to fill gaps in the market and add further competitive pressure.

¹ This report analyses market competition as the number of service providers, their market share and competitive behaviour, and additional external factors, such as regulatory environment.

While it is clear that competition is core to the success of broadband markets, many countries are falling short. Of the 136 low- and middle-income countries studied in this report, only 65 have fully competitive markets. Globally, over 260 million people have just one choice of major mobile network operator, and an estimated 589 million people live in countries where a lack of competition keeps internet prices higher than they should be. While there is a historic trend towards liberalisation, this year's report

shows that progress on market competition <u>is stalling</u> and, in some cases, markets are becoming more consolidated. For example, international telecoms company Millicom <u>exited from African markets</u>, threatening a wave of consolidation across the continent. In India, operator Reliance Jio — which was <u>once a disrupting force</u> bringing millions online via mobile internet — is now rapidly consolidating the market.

Governments can support healthy broadband markets

Governments should use their policy and regulatory powers to build competitive broadband markets that provide users with lower costs and high quality services. They should focus on three core areas necessary to support healthy, competitive markets:



Shaping a competitive market environment for broadband

In robust and competitive markets, operators face more pressure to innovate and provide value. Governments can help by setting fair and clear market rules for entry into the market, with clear licensing requirements for traditional providers and community networks. Policymakers should support robust operating rules, and regulators should provide regulatory certainty for service providers to help their long-term planning and to encourage network investments. They should intervene where necessary but, most importantly, must establish incentives to ensure market environments continue to support competition. With the telecommunications landscape constantly changing, the International Telecommunications Union's (ITU) proposed concept of collaborative regulation is particularly critical, supporting policy innovation to address threats to competition as they evolve.



Supporting affordable backhaul and infrastructure

Access to backhaul connectivity must be affordable so that additional service providers are able to enter the market, providing more competition. Regulators and policymakers play a key role in facilitating infrastructure sharing among operators, investing in high-capacity backhaul networks, and allocating spectrum in a fair and transparent way.

To help make connectivity more affordable for providers at the wholesale level, a growing number of governments are trialling investments in wholesale open access networks (WOANs)². An examination of trials in Mexico and Rwanda, where WOANs are most developed, suggests they could offer a viable option to countries with low connectivity and consolidated broadband markets that are in need of substantial reform.

CASE STUDY:

Submarine competition in Ghana

As demand for internet access across West Africa first explodes, a public-private partnership in Ghana adds competition at the backhaul level and triggers a drop in internet prices.

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² WOANs are a form of shared infrastructure designed to separate the business model of physical network provision and maintenance from internet access services offered to consumers.

Investing in public access options to complement markets

Public access and community networks complement the commercial market. They supply access where there are market gaps, expand connectivity to more people, build digital skills in new communities, and cultivate demand for internet access. They can also increase competition by providing more choice to consumers, which adds pressure for operators to improve services and lower prices. Governments should invest in public access as a priority.

Market competition and public access options are powerful, complementary forces that motivate providers to innovate and provide affordable, quality services for users. Governments should use their regulatory powers to support a competitive market environment as well as invest to open up markets to new providers and end users. By taking these steps to shape healthy, stable broadband markets, governments will help more citizens get online with affordable internet access.



Public access changing lives

See how public access internet has improved the lives of an Indonesian mango seller and a university cleaner in Cape Town, South Africa.

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Full 2019 ADI Results, by income group

COUNTRY	ACCESS SUB- INDEX	INFRASTRUCTURE SUB-INDEX	ADI SCORE	ADI RANK (CHANGE)	WB INCOME GROUP 2019
Malaysia	98.17	65.62	85.33	1 (0)	Upper mid
Colombia	85.39	74.05	83.06	2 (0)	Upper mid
Costa Rica	88.61	63.44	79.21	3 (1)	Upper mid
Peru	81.23	68.44	77.98	4 (-1)	Upper mid
Mexico	78.24	68.21	76.29	5 (0)	Upper mid
Turkey	79.15	60.32	72.66	6 (0)	Upper mid
Argentina	76.10	63.09	72.51	7 (0)	Upper mid
Thailand	79.39	55.63	70.34	8 (1)	Upper mid
India	72.69	61.45	69.88	9 (-1)	Lower mid
Dominican Republic	74.40	59.19	69.59	10 (0)	Upper mid
Ecuador	73.65	59.25	69.24	11 (0)	Upper mid
Brazil	72.74	58.19	68.21	12 (1)	Upper mid
Mauritius	76.25	50.37	65.96	13 (-1)	Upper mid
Pakistan	68.10	55.60	64.44	14 (1)	Lower mid
Morocco	73.67	48.75	63.78	15 (-1)	Lower mid
Indonesia	74.40	46.99	63.24	16 (0)	Lower mid
Jamaica	66.99	53.42	62.73	17 (0)	Upper mid
Jordan	61.51	57.77	62.14	18 (3)	Upper mid
Nigeria	69.22	48.11	61.13	19 (-1)	Lower mid
Ghana	67.09	50.11	61.06	20 (0)	Lower mid
Tunisia	66.63	50.50	61.02	21 (2)	Lower mid
Botswana	67.64	47.67	60.08	22 (0)	Upper mid
South Africa	69.58	45.06	59.72	23 (-4)	Upper mid
Viet Nam	59.63	54.19	59.30	24 (1)	Lower mid
Sri Lanka	64.87	46.45	57.99	25 (-1)	Upper mid
Philippines	64.66	46.47	57.90	26 (5)	Lower mid
Côte d'Ivoire	67.34	43.48	57.73	27 (-1)	Lower mid
Senegal	58.30	52.07	57.50	28 (-1)	Lower mid
Benin	57.15	50.95	56.32	29 (0)	Low
Bolivia	53.60	51.10	54.55	30 (2)	Lower mid
Rwanda	56.77	47.43	54.29	31 (-3)	Low
Tanzania	55.11	47.73	53.58	32 (3)	Low
Egypt	56.80	44.28	52.66	33 (0)	Lower mid
Honduras	52.29	48.20	52.36	34 (0)	Lower mid

COUNTRY	ACCESS SUB- INDEX	INFRASTRUCTURE SUB-INDEX	ADI SCORE	ADI RANK (CHANGE)	WB INCOME GROUP 2019
China	50.27	50.02	52.25	35 (5)	Upper mid
Uganda	55.24	45.00	52.22	36 (0)	Low
Kenya	50.26	48.76	51.59	37 (0)	Lower mid
Cambodia	55.22	43.78	51.57	38 (0)	Lower mid
Nepal	50.31	47.37	50.89	39 (0)	Low
Mali	49.68	46.79	50.26	40 (5)	Low
Bangladesh	47.41	45.29	48.30	41 (0)	Lower mid
Namibia	43.92	46.60	47.16	42 (2)	Upper mid
Myanmar	43.61	45.98	46.67	43 (-13)	Lower mid
Cameroon	45.47	43.19	46.19	44 (6)	Lower mid
Mozambique	45.71	41.57	45.47	45 (-2)	Low
Zambia	45.93	40.34	44.94	46 (0)	Lower mid
Venezuela	41.01	44.26	44.42	47 (-5)	Upper mid
Kazakhstan	54.48	30.54	44.29	48 (3)	Upper mid
Burkina Faso	44.61	37.50	42.77	49 (0)	Low
Gambia, The	46.50	33.53	41.69	50 (-2)	Low
Guatemala	41.48	37.08	40.93	51 (-4)	Upper mid
Malawi	40.76	28.74	36.20	52 (2)	Low
Zimbabwe	44.99	23.97	35.92	53 (-1)	Lower mid
Sudan	42.94	25.62	35.72	54 (-1)	Lower mid
Nicaragua	36.74	29.79	34.66	55 (0)	Lower mid
Liberia	27.83	18.17	23.96	56 (0)	Low
Sierra Leone	29.08	15.89	23.43	57 (0)	Low
Congo, DR	21.44	14.59	18.77	58 (0)	Low
Haiti	14.17	18.31	16.92	59 (0)	Low
Ethiopia	14.73	7.17	11.41	60 (0)	Low
Yemen	0.00	0.00	0.00	61 (0)	Low