A4AI ALLIANCE FOR AFFORDABLE INTERNET

A global coalition working to make broadband affordable for all

Meaningful Connectivity for Rural Communities

Geographic Barriers & Policy Strategies for Digital Inclusion

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A4AI ALLIANCE FOR AFFORDABLE INTERNET

The **Alliance for Affordable Internet (A4AI)** is a global coalition working to drive down the cost of internet access in low- and middle-income countries through policy and regulatory reform. We bring together businesses, governments, and civil society actors from across the globe to deliver the policies needed to reduce the cost to connect and make universal, affordable internet access a reality for all.

Microsoft

The **Microsoft** Airband Initiative advances digital equity - access to affordable internet, affordable devices, and digital skills - as a platform for empowerment and digital transformation across the world.

Executive Summary

This report details the urban-rural connectivity gap in nine low- and middle-income countries (LMICs) and what that means for their potential to achieve the Sustainable Development Goals.

It guides policymakers from the problem (the lack of connectivity) and the consequences (more limited user experiences) to the policy solutions that can aid them to narrow the connectivity gap and boost connectivity in rural areas.

The report uses the Meaningful Connectivity framework, launched in 2020 by the Alliance for Affordable Internet (A4AI) to measure the gap and explore its consequences. It also bolsters the 2019 Rural Broadband Policy Framework and explores other factors of connectivity, including PC ownership. In particular, it focuses on the impact that meaningful connectivity can have in places with Least Developed Countries (LDC) classification.

How big is the urban-rural connectivity gap?

Across all nine countries, roughly only one in ten people have meaningful connectivity. In urban areas, this increases to one in seven. In rural areas, the ratio drops to one of every twenty.

This disparity becomes even worse in the two LDC countries in our study: in Mozambique and Rwanda, fewer than one in every fifty people in rural areas have meaningful connectivity. This should alarm policymakers because as a share of the world's rural population, one in four lives within an LDC country: as part of the world's online population, only one of every twenty users connects from an LDC country.

What is meaningful connectivity?

Meaningful Connectivity is a policy framework and internet access metric to understand the quality of internet access someone has. This is a step beyond the current binary indicator of single use, any time within the past three months to understanding when the internet, as a technology, has the potential to transform societies and economies.

We understand meaningful connectivity as when someone has 4G-like speeds on a smartphone they own, with a daily use of an unlimited access point at somewhere like home, work, or a place of study.

Why should we care about meaningful connectivity for rural areas?

Meaningful connectivity is a valuable policy objective — and meaningful connectivity in rural areas specifically — because of the tremendous potential this kind of access has in increasing countries' potential to achieve various Sustainable Development Goals.

- In our surveys of 1,000 mobile internet users in nine LMICs, users with meaningful connectivity across different demographic groups were 30-33% more likely to use the internet to do essential activities like access healthcare, take a class, look for work, or participate in the digital economy.
- Meaningful connectivity in rural areas correlated with jumps in essential online activity. For example, rural respondents were 88.4% more likely to have bought something online in the past three months if they had meaningful connectivity rather than just basic internet access.
- Greater meaningful connectivity also saw online activity gaps between urban and rural users narrow, suggesting a way for internet access to be a means to reducing other social and economic inequities.
- In addition to meaningful connectivity, PC ownership also correlated with jumps in informational autonomy and digital participation. These jumps grow larger across our study countries as rates of internet penetration increase, suggesting a societal factor to connectivity and its benefits.

How do we close the connectivity gap?

The reach and quality of internet access in the world is a consequence of the broadband policies we have. In tandem with vast populations underserved or completely disconnected, many countries offer underwhelming results in setting rural targets within their national broadband plans and rural-inclusive broadband policies.

There are policy strategies available to governments looking to expand meaningful connectivity in rural areas and build the foundations for an inclusive digital economy.

What do policymakers need to do?

The gap that exists to today is not a fact that must be but a consequence of the policy choices we make. Policymakers looking to narrow this gap should prioritise three steps:

1

Engage rural communities
in the broadband policy agenda

2

Embed Meaningful Connectivity
indicators within key ICT statistics

3

Leverage public access solutions
to provide affordable and meaningful resources to rural and remote communities

We have the opportunity to learn from our past and build better policies that enable greater meaningful connectivity in rural areas. This report summaries a suite of options available to policymakers, from Brazil to Jamaica, Kenya to Ghana.

Rural communities deserve meaningful connectivity

Internet access has had a transformative effect on humanity. This impact has been especially felt over the past two years during the Covid-19 pandemic. In those two years, millions more came online for the first time, with internet use now at its highest point in history (ITU, 2021). However, this experience has also stressed the digital inequities that persist in access throughout the world, and this report summarises some of the social, economic, and political consequences of that inequity.

Geography creates natural barriers that impede internet access in rural and remote areas. Through higher service costs, lower average demand, and other challenges, rural areas tend to have slower, more expensive, and less reliable internet services than their urban peers. This amounts to a connectivity gap between urban and rural areas, where **in the nine low and middle income countries[1] included in this study, those living in urban areas were nearly three times more likely to have meaningful connectivity than those living in rural areas.**

This connectivity gap has consequences. In surveying over 1,000 internet users in each country, we can compare the user behaviours of those with meaningful connectivity and those with basic internet access.

The response is clear: **users with meaningful connectivity are 30-33% more likely to use the internet for essential activities like accessing healthcare, looking up government services, taking a class, or looking for work.**

In addition to the overall increases seen with meaningful connectivity, the gap between urban and rural internet users on these indicators narrows when they have meaningful connectivity.

Broadband policies will determine the future shape of the urban-rural connectivity gap. Effective, rural-inclusive policies, informed by frameworks like meaningful connectivity and the Rural Broadband Policy Framework, offer the promise to narrow this gap and expand meaningful connectivity in urban and rural areas alike. Case studies from around the world, including Argentina, Brazil, Ghana, Jamaica, Kenya, Mexico, and Peru, offer instructive examples of how to achieve this.

Meaningful connectivity is not the reality of millions of rural people living across the globe — but nor is it an unrealistic future. The situation is most acute among Least Developed Countries (LDCs), where rural populations tend to be larger. Affordability and literacy barriers compound into challenges that require intentional policy interventions.

Greater connectivity can help governments accelerate their achievement of other related goals in education, health, governance, and economic development. Broadband policies from around the world can suggest ways forward. Namely, governments must:

1. **Engage rural communities** in the broadband policy agenda
2. **Embed Meaningful Connectivity** indicators within key ICT statistics
3. **Leverage public access solutions** to provide affordable and meaningful resources to rural and remote communities

1 Colombia, Ghana, India, Indonesia, Kenya, Mozambique, Nigeria, Rwanda, and South Africa

What is meaningful connectivity, and how do we measure it?

Meaningful connectivity is a proposed framework for measuring qualities of internet access in an area. It focuses on four pillars:

4G-LIKE INTERNET SPEEDS

SMARTPHONE OWNERSHIP

AN UNLIMITED BROADBAND CONNECTION AT HOME, WORK, OR PLACE OF STUDY

DAILY USE

It suggests replacing the existing top-level measure of internet use – defined as access on any device at least **once in the past three months** (*see* ITU, 2020) — as the lead indicator for connectivity within a country. Through the four, focused pillars, the framework offers guiding priorities for policymakers to focus their interventions through public investment, regulatory reform, and vision-setting to achieve universal, affordable, and meaningful internet access (A4AI, 2021).

	ITU DEFINITION OF INTERNET USE	MEANINGFUL CONNECTIVITY
Speed	No minimum speed	4G-like speed
Device	Any device	Smartphone ownership
Data Allowance	No minimum	An unlimited broadband connection
Frequency	At least once in the past three months	Daily use

The framework is built around two measures: the number of people within a country with meaningful connectivity and the National Assessment for Meaningful Connectivity.[1] This report focuses on the number of people within these countries that have meaningful connectivity: that is, that have all four of the elements mentioned above. The National Assessment is a policy tool to help a country measure progress over time and brings together an average of the four pillars for a net national score.

1 Details on the precise calculation of each are available in the Meaningful Connectivity Methodology Guide (A4AI, 2021)

Geography has kept billions in rural areas offline and underconnected

People living in urban areas are more likely to have access to the internet and more likely to use it than those living in rural and remote regions. According to the latest estimates from the United Nations specialised agency for ICT, the International Telecommunication Union (ITU), less than two out of every five people living in rural areas have an internet connection (ITU, 2021). In contrast, nearly twice as many people living in urban areas are connected.

This stark disparity in internet use is known as the **rural-urban digital divide** and relates to the forms of digital exclusion that keep billions of people around the world offline and under-connected.

RURAL AREAS FACE HIGHER COSTS AND OTHER BARRIERS TO CONNECTIVITY

In order to address the gaps preventing rural areas from catching up with their urban counterparts, stakeholders must be aware of the specific obstacles holding rural areas behind. These include higher structural costs (A4AI, 2018), including those associated with lack of or limited access to power (A4AI, 2021; Mangal & Foditsch, 2021), lower overall demand levels, a lack of supply (ITU, 2016), vulnerability to disruption in the context of reduced redundancies (Mangal, 2022), higher rates of poverty (World Bank, 2020), lower attainment rates in education and literacy (OECD, 2020), especially among women and girls, and an absence of public policies designed to increase and improve rural connectivity for all (A4AI, 2018).

Demand for internet in rural areas is a question of affordability. The affordability of mobile data and internet-capable devices are one of the most commonly-mentioned barriers to internet access (GSMA, 2021; see also A4AI, 2022, and A4AI, 2021). This is even more so in rural areas, where incomes tend to be lower, thus negatively affecting comparative affordability. In research conducted by A4AI-Web Foundation in 2020, more than a third (35%) of the people surveyed in rural areas in Colombia, Ghana, and Uganda reported that the most frequent limitation to greater internet use is the cost of mobile data (Web Foundation, 2020). Also, a third of people in Colombia, Ghana, Indonesia, and Uganda identified the cost of mobile devices as one of the main reasons they do not use the internet. Economic conditions vary by geographic location (ILO, 2020) and what might be considered affordable in the urban area of Accra, may be considered prohibitively expensive in a rural area of Ghana.

The lack of rural demand is compounded by higher levels of illiteracy and lower levels of education in these areas (OECD, 2020). The lack of education in general and the lack of digital knowledge in particular is another major barrier that prevents people from accessing the internet in rural areas (GSMA, 2021). Nearly half (48%) of survey respondents by A4AI-Web Foundation in 2020 in rural Colombia, Ghana, Indonesia, and Uganda reported that they do not currently use the internet because they do not know how to use it (Web Foundation, 2020).

In rural areas, several forms of discrimination – along lines of gender, class, ethnicity, education, and race – operate in conjunction that make it harder for people to connect. Although present in urban areas as well, these issues can be more pronounced in rural areas. For example, women in rural areas are less likely to own a mobile phone or use mobile internet than their urban peers (GSMA, 2021). In these areas often gender gaps in connectivity are larger and women belonging to historically discriminated ethnic groups are more likely to be prevented from gaining access.

Going beyond demand, in rural areas, higher capital costs limit connectivity by altering the potential for return on investment. As detailed in the 2018 Affordability Report (A4AI, 2018), these supply-side factors are related to the greater levels of remoteness and lower levels of population density characteristic of rural areas and also to the geographic terrain.

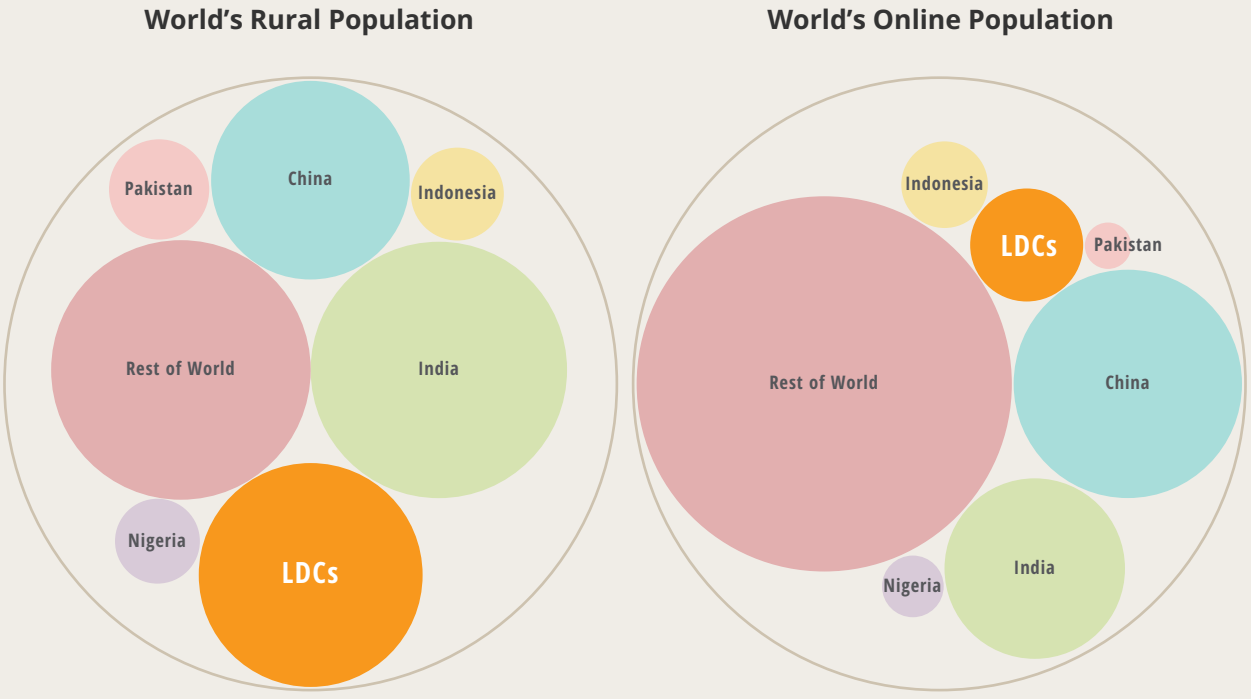
For rural areas, the lower population density offers a lower potential return on investment in terms of internet service subscriptions. In remote areas, the difficult terrain of open waters surrounding Small Island Developing States (SIDS) or mountainous areas, particularly in landlocked countries, increase the upfront cost of network construction.

The overlap of poverty, geography, and connectivity

Poverty, geography, and connectivity have a closely interlinked relationship. Those in rural areas are more likely to be poorer and offline, while those in urban areas are more likely to have higher incomes and to use the internet. Extreme poverty continues to be a problem concentrated in rural areas. According to a UN report, more than 50% of the rural population in several countries in sub-Saharan Africa live in extreme poverty (UN DESA, 2021).

This logic applies, too, to countries with Least Developed Countries (LDC) classification. **As a part of the world's rural population, one in five rural people in the world live within an LDC country. In contrast, only one of every twenty internet users connects from an LDC.**

Figure 1. Comparison, where rural people live vs. where people connect from



Source: A4AI, 2021, from World Development Indicators 2019 & 2020

If the internet is to be the transformational technology it has the potential to be, this correlation must be broken. In turn, as we confront the barriers to internet access and use in rural areas, including affordability, we must consider the intersectionality of these features in advocating for effective broadband policies and regulatory institutions.

EVEN WITH BASIC CONNECTIVITY, RURAL POPULATIONS REMAIN AT THE MARGINS.

This report presents the findings of a second round of surveys conducted by phone and expanded to nine low and middle income countries around the Global South. Highlighting the importance of disaggregating data by urban and rural areas, these surveys captured respondents' urban-rural status and allowed us to document the divide with great precision.

Our findings show that the gap was larger than we expected. **In urban areas of these nine countries, almost three times as many people have meaningful connectivity.**

Table 1. Key research questions and project scope

1	What are some estimates of meaningful connectivity around the world today?
2	How effective are mobile internet surveys as a proxy measure for meaningful connectivity?
3	What is the user experience for someone with meaningful connectivity compared to for someone without it?
4	What other factors, including fixed access and other devices, are important to user experiences?

Table 2. Key Meaningful Connectivity Estimates, Selected Countries

COUNTRY	ESTIMATED % POPULATION WITH MC	ESTIMATED % URBAN POP WITH MC	ESTIMATED % RURAL POP WITH MC	MC GEOGRAPHY GAP
Colombia	26.2%	30.5%	7.6%	87.4%
Ghana	6.5%	9.0%	2.8%	95.4%
India	6.8%	9.0%	5.3%	54.4%
Indonesia	12.7%	15.3%	9.1%	48.8%
Kenya	10.9%	20.7%	6.5%	130.3%
Mozambique	3.6%	6.7%	1.5%	144.4%
Nigeria	12.1%	16.4%	6.6%	81.0%
Rwanda	0.6%	1.9%	0.3%	266.7%
South Africa	12.8%	15.9%	5.7%	79.7%

Source: Alliance for Affordable Internet, 2022

According to our survey results, only 10% of the total population in the countries surveyed are meaningfully connected to the internet. That number rises to 14% in urban areas and falls to a mere 5% in rural areas. The share of people meaningfully connected ranges greatly within the nine countries surveyed. In Colombia, around one in four have meaningful connectivity (26.2%). In Rwanda, it is only one out every 166 people (0.6%).

To define and measure meaningful connectivity, A4AI uses four different indicators that relate to the quality and functionality of an internet connection: a 4G connection; ownership of a smartphone ownership; an unlimited broadband connection at home, work or place of study; and daily use. A4AI used these nine surveys to estimate the prevalence of each of the four pillars of meaningful connectivity by surveying mobile internet users and using weighted projections to estimate what fraction of the population that might represent.[2] In addition, we collected data on home internet connection types and ownership of other devices, such as laptops, desktops, and tablets.

Among these measures and across the nine countries surveyed, the least common was unlimited access to a broadband connection. On average, only 34% of the population reported having an unlimited broadband connection. This figure goes down to 27% in rural areas. Along this dimension urban areas are 25% better off than rural ones. There is an urgent need to offer people an unlimited connection at home, work, or place of study. Without this, the majority of people living in these countries do not have enough data to study, work or access healthcare online. These are all some of the most beneficial opportunities the internet has to offer.

2 This methodology is not perfect, and the estimates in this section should not be used in place of official figures, where available. The use of imperfect estimates is a necessity, where perfect data does not exist and efforts are made to control for and contextualise potential limitations of this data. Further discussion of this methodology is available in *Advancing Meaningful Connectivity* (A4AI, 2022).

Table 3. Estimates of the Meaningful Connectivity Geography Gap, by Indicator (as Projected % of Population based on Survey Respondents)

	DAILY USE			4G ACCESS			SMARTPHONE			UNLIMITED		
	URB	RUR	ALL	URB	RUR	ALL	URB	RUR	ALL	URB	RUR	ALL
Colombia	63.6	28.1	**56.9**	35.0	12.2	**30.8**	65.9	31.8	**59.6**	59.9	28.5	**54.0**
Ghana	50.5	19.1	**37.6**	23.4	8.3	**17.3**	53.0	21.9	**39.9**	22.9	9.2	**17.3**
India	25.9	15.6	**18.9**	21.7	14.4	**16.5**	24.9	14.9	**18.5**	11.6	6.6	**8.8**
Indonesia	87.6	81.0	**85.3**	64.5	55.7	**61.5**	93.9	91.9	**93.2**	44.8	38.7	**42.9**
Kenya	76.4	66.5	**70.7**	57.1	42.4	**48.9**	94.3	90.2	**91.8**	62.1	45.8	**52.7**
Mozambique	37.5	14.0	**22.9**	19.5	7.2	**11.9**	44.2	19.1	**28.4**	18.3	5.5	**10.5**
Nigeria	51.9	22.2	**38.1**	35.3	15.1	**26.1**	58.2	29.5	**44.4**	29.3	13.7	**22.1**
Rwanda	26.8	5.6	**9.5**	9.0	1.5	**2.8**	39.2	10.1	**15.2**	18.3	4.2	**7.0**
South Africa	56.4	31.9	**48.4**	35.0	19.2	**30.2**	64.6	45.8	**58.4**	32.4	14.9	**26.7**

Source: Alliance for Affordable Internet, 2021

The most widely achieved target, based on estimates from survey responses, was smartphone ownership. On average in these countries, nearly two thirds (64%) of the population reported owning a smartphone. In comparison to the national average, across the nine countries, users in rural areas experience slower speeds on earlier generations of mobile internet technology. On average, 35% of the population in these countries have a 4G or plus connection, but this drops to 28% in rural areas. Lastly, on average, daily use is much more common in urban areas. 64% of the population in urban areas access the internet daily, in contrast to only 46% in rural areas.

MEANINGFUL CONNECTIVITY GAPS EXPOSE URBAN-RURAL INEQUALITIES IN INTERNET ACCESS

Across the nine countries surveyed, rural areas lag behind their urban counterparts in terms of internet connectivity. On average, people in urban areas are twice as likely to be connected to the internet compared to people in rural areas and the urban-rural gap for internet use is 70%. However, in terms of meaningful connectivity, **urban areas have levels of meaningful connectivity that are over three times greater when compared to rural areas** and the meaningful connectivity geography gap reaches 110%. The gaps in internet connectivity underestimate the degree to which rural areas lag behind urban ones in the quality of the access they have.

The clear trend of deeper meaningful connectivity gaps between urban and rural areas in all countries illustrates the urgency for action not just to connect rural and remote populations to the internet but to ensure this connectivity has the essential technical capabilities to be meaningful for people living in these areas.

Defining geography gaps

The Alliance reports geography gaps (that is, the difference between urban and rural access) as a percentage of the national average. This strategy is taken for two key reasons: national context and policy relevance.

$$\frac{\text{\% urban online} - \text{\% rural online}}{\text{\% national population online}}$$

Geography and gender affect the national policy context in unique ways. Across the globe, countries have much less variance in their gender ratio than in their degrees of rurality (*cf.* Our World in Data, 2019, and World Bank, 2021). Connected to this, high variance in the gender ratio from the average usually correlates with public policy and social norms that impose a preference for men over women and for boys over girls (Our World in Data, 2019; UNDP, 2020). We do not have evidence for the same explicit correlation between public policy and degrees of rurality. This variance means we expect these numbers — between gender and geography — to behave differently. This is why we define gender gaps with a different methodology (A4AI, 2018).

In line, this new calculation method for geography gaps guides policy relevance in relation to the degree of rurality in that country. Between two countries where the percentage point difference between urban and rural internet use is identical, a country with a larger rural population will have a larger reported geography gap than a highly urbanised country. This calculation method, then, nudges policymakers responsively towards the greatest good: where there are more rural people, the urgency of the geography gap becomes more pressing in the report statistics.

Greater connectivity offers the promise of greater potential for rural communities

In these surveys, A4AI found that users with meaningful connectivity were 30-33% more likely to conduct key activities online than their peers with just basic internet access (A4AI, 2022). This trend held true for those living in rural areas, as well.

Meaningful connectivity in rural areas correlated with jumps in essential online activity. Rural respondents were 88.4% more likely to have bought something online in the past three months if they had meaningful connectivity rather than just basic internet access. They were 55.4% more likely to have taken a class online, and 50.7% more likely to have sold something online.

In addition, meaningful connectivity closed online activity gaps between urban and rural users. Among those with just basic internet access, urban users were 10.3% more likely to have conducted any of the nine essential online activities. Among those with meaningful connectivity, this gap reduced down to 8.2%, in the context of seeing over 30% increases among each demographic group for online activity.

Some exceptions apply to this trend. For example, urban internet users were 49.4% more likely to access healthcare online when they had meaningful connectivity, while rural internet users only reported a 14.5% increase when meaningfully connected. Also amongst rural users, they were only 9% more likely to have made or received a payment online when meaningfully connected while urban internet users were 18.5% more likely to have done so with meaningful connectivity. This may have to do with the availability of these services in certain countries as connected to their geography.

Table 4. Online activity rates among rural internet users, by access profile

	MEANINGFULLY CONNECTED	BASIC INTERNET ACCESS	INCREASE WITH MC
Accessed healthcare	25.9%	22.6%	14.5%
Bought something	55.9%	29.7%	88.4%
Talked to family/friends	94.9%	87.9%	7.9%
Looked for a job	49.2%	36.5%	35.0%
Made or received a payment	61.4%	56.3%	9.0%
Posted on social media	75.9%	67.4%	12.7%
Sold something	23.9%	15.9%	50.7%
Looked up government services	61.4%	48.6%	26.2%
Took a class	48.2%	31.0%	55.4%

Source: Alliance for Affordable Internet, 2021

Table 5. Urban-rural online activity gap, by access profile

	AVERAGE ACTIVITY RESPONSE RATE, WITH MEANINGFUL CONNECTIVITY	AVERAGE ACTIVITY RESPONSE RATE, WITH BASIC INTERNET ACCESS	PERCENTAGE DIFFERENCE
Urban	60.0%	48.8%	30.0%
Rural	55.2%	44.0%	33.3%
Geography Gap	8.2%	10.3%	

Source: Alliance for Affordable Internet, 2021

These results stress the importance of advancing meaningful connectivity in rural areas. In both urban and rural areas, meaningful connectivity reliably correlates with increases in the internet being used for essential activities such as looking for work, taking a class, or learning more about government services. In addition, the gaps between urban and rural communities narrow where meaningful connectivity is available.

PERSONAL COMPUTER OWNERSHIP CORRELATES WITH GREATER INFORMATIONAL LITERACY AND HIGHER ONLINE ACTIVITY.

In addition to measuring for meaningful connectivity, the surveys asked respondents about device ownership. From this information, comparisons can be drawn between the experiences of those who own a personal computer (including a desktop, laptop, or tablet device) and those who do not.

Personal computer owners were fairly well-represented within our survey samples, with just over half of all respondents owning a PC at home. This is an oversampling of the reality for many compared to the latest official figures (ITU, 2021). This matches with the methodology's limitations to oversample from wealthier, better educated, and more privileged households. However, the large number of respondents and their relative geographic diversity across all nine countries give us some confidence to make projections based on inter-group comparisons of the user experience.

Table 6. Personal computer owners as percentage of the survey sample, by country

COUNTRY	PC OWNERS AS % OF SAMPLE
Colombia	60.4%
Ghana	58.6%
India	21.8%
Indonesia	51.6%
Kenya	50.4%
Mozambique	46.3%
Nigeria	68.7%
Rwanda	31.5%
South Africa	64.8%

Source: Alliance for Affordable Internet, 2021

Beyond meaningful connectivity, personal computer ownership among our survey respondents also correlated with key increases along the nine informational and activity indicators. Overall, PC owners had 75.3% confidence in finding a piece of information, while non-owners were only 58.2% confident. This represents a 29.3% increase on informational confidence on average across countries and indicators.

Table 7. Online activity rates among rural internet users, by access profile

	PC OWNERS	PC NON-OWNERS	PERCENTAGE DIFFERENCE
How to book a medical appointment	66.5%	50.0%	33.1%
How to buy a bus or train ticket	69.6%	50.5%	37.8%
How to open a mobile money or bank account	75.6%	57.1%	32.4%
How to report a crime	67.1%	53.5%	25.3%
What are the symptoms of Covid-19	90.6%	77.4%	17.1%
What the weather will be tomorrow	82.5%	67.2%	22.8%
When the next elections will be	74.3%	57.9%	28.3%
Where to buy a book	76.9%	55.1%	39.4%
How to find someone to do a service	74.3%	55.0%	35.1%

Source: Alliance for Affordable Internet, 2021

Some of the most stark differences occurred amongst economic indicators. The largest gap was related to confidence of buying a book online (39.4% based on PC ownership), along with large gaps for buying a ticket for public transportation (37.8%), opening a mobile money or bank account (32.4%) and finding someone to do a service (35.1%).

Information gaps narrowed between urban and rural communities based on personal computer ownership. In general, respondents in urban areas were 26.1% more confident to find a piece of information than those without, while rural respondents were 31.8% more likely to be confident. This matches with an urban-rural gap in informational confidence of 12.4% among those without a PC to a 7.3% gap among those with a PC. Much like with meaningful connectivity, finding information about some essential services, such as banking or healthcare, saw larger increases among urban rather than rural respondents, and potentially indicating an overlapping variable in terms of service provision in these respective areas.

When looking at digital participation, personal computer owners were 37.7% more likely to have completed any one of the nine online actions in the past three months than those without one. Some of the largest gaps, again, were seen among indicators around participation in the digital economy.

PC owners were...

75%
MORE LIKELY TO HAVE BOUGHT SOMETHING ONLINE

76%
MORE LIKELY TO HAVE SOLD SOMETHING ONLINE

52%
MORE LIKELY TO HAVE LOOKED FOR A JOB ONLINE

78%
MORE LIKELY TO HAVE TAKEN A CLASS ONLINE

Promisingly, these jumps remained consistent across demographic differences. All countries saw a consistent jump between PC owners and non-owners, with the smallest gaps in the LDC survey countries Rwanda (23.0%) and Mozambique (29.1%), and the largest in more affluent Colombia (48.3%) and Indonesia (45.0%). This may indicate that the potential of being connected (and in turn the potential risks of being unconnected) increases as more of a society and its economy moves online. Men and women both benefit from PC ownership. Women were 49.9% more likely to have taken any given action when they owned a PC while men were 46.9% more likely. The benefits were also geographically consistent within countries, where urban PC owners were 46% more likely to have done a given action online while rural PC owners were 46.2% more likely.

All of this suggests that personal computer ownership may also lend itself to greater participation within the digital world. There are limitations to this data, including the lack of data to sufficiently analyse how much PC ownership transcends other demographic factors that affect digital participation — namely, education and income levels — or is merely just a correlation. However, a consistent trend does emerge across countries, gender, and geography that suggests that PC ownership has an important effect on the user experience in terms of informational autonomy and digital participation, much like meaningful connectivity. Together, these elements can work as complements in a comprehensive broadband policy for rural connectivity.

Broadband policies can – and must – fill the connectivity gap in rural areas

A clear gap exists in adequate rural broadband policy – especially in the regions where it is most urgent. In a survey of 69 national broadband plans as part of the 2020 Affordability Report, A4AI found 21 of those countries set no specific target for rural access within their plan (A4AI, 2020). Over half of those countries (11 of 21) belonged to the Least Developed Countries classification.

This policy failure illustrates both a gap in where ICT policy and regulation are today and an opportunity for where improvements can be made, especially among Least Developed Countries, where residents are more likely to live in rural areas and connectivity and affordability challenges are more difficult.

Inset: World Map of 11 LDCs with no rural targets: Afghanistan, Burundi, Cambodia, DRC, Ethiopia, Laos, Madagascar, Mali, Sudan, Tanzania, Uganda

Launched in February 2020, the RBPF is the result of the collective efforts of A4AI and a number of its members. The RBPF has eight elements that are intended guide efforts for realising universal access in the locations where people are the most digitally excluded and unconnected:

1. Harnessing **Market Competition** While Addressing Market Failures
2. Streamlining **Regulatory Processes**
3. **Public Access** and Universal Service and Access Funds
4. Effectively Managing **Spectrum** Resources
5. Leveraging **Innovative** Technologies, Architectures, and Business Models
6. Adopting Appropriate **Tax and Fee Structures**
7. Stimulating **Demand** for Broadband Services
8. Monitoring and **Accountability**

On their own, each of these elements can contribute to bringing more people online. However, it is often in combining elements that meaningful connectivity can be unlocked for more people and is also the basis of a strong rural broadband plan.

With the declaration of the global Covid-19 pandemic just a month after the launch of the RBPF, application of this tool and its eight constituent elements has never been more important: almost overnight, vital public services had to move online and the ability to stay in contact with family and friends was primarily available only to people with internet access because national lockdowns necessitated the curtailment of freedom of movement.

As time passes, we continue to see that where meaningful connectivity is concerned, those who live in cities are the ones that more likely have it, and those living in rural areas are not. An important step to ensure this does not remain the norm is to address the market conditions that have yet to deliver meaningful ICT services to rural and remote areas, where operating costs can exceed revenue generation potential.

The eight elements of the Rural Broadband Policy Framework map naturally to this cause. Tapping into the potential of Universal Service and Access Funds will be crucial to lowering the costs of deploying infrastructure to rural areas (*see* A4AI, 2021). Moreover, funding will be essential for governments and other service providers to leverage innovative technologies, architectures, and business models that emerge in support of rural broadband as well as to grow demand for services that make use of broadband. Public-private partnerships, for example, will be essential to pooling capital together for critical investments and for generating momentum to expand access in rural and remote areas.

Governments undoubtedly have a significant role to play in rural broadband development through the legal and regulatory processes they create and lead. Not only is there a need to streamline these processes, but it is also imperative to ensure rural broadband reaches everyone by adopting appropriate levels of taxation and fees that enhance the affordability of these services. Strategic management of spectrum resources is another key mechanism for facilitating meaningful connectivity by enabling timely, flexible usage of the spectrum resources available, ideally on a technology-neutral basis. Monitoring progress and keeping stakeholders accountable during the push to bring rural areas online is critical to maintain the momentum of the gains made while also helping to develop a better understanding of what works, what needs to be adjusted, and what should be stopped altogether if the outcome does not mirror the initial plans imagined.

The recognition that these eight elements can help transform circumstances for broadband access in rural areas is important to keep in mind for governments, the private sector, and those affected by the digital divide. All stakeholders must also acknowledge that bespoke solutions will be required for different contexts – and at the heart of this creative thinking and approach is collaboration. It is in this spirit that the Rural Broadband Policy Framework embraces multistakeholderism and aims to bring the public, private, and civil society together to reimagine how meaningful connectivity can truly become accessible to all.

Case studies around the world offer instructive examples for policymakers

To understand why policymakers should adopt broadband policies that give people living in rural areas meaningful connectivity, it is helpful to explore what has already been achieved by governments working to facilitate digital inclusion for their citizens.

This report shares experiences from Brazil, Kenya, Argentina, Ghana, Peru, Jamaica, and Mexico to illustrate how the Rural Broadband Policy Framework and meaningful connectivity can map onto each other to guide policymakers on strategies approaches to improving connectivity conditions.

BRAZIL: LEVERAGING MARKET COMPETITION TO SPUR RURAL INVESTMENT

Despite being the largest country in terms of both population and area in South America, by the time of its selection to host the 2016 Summer Olympics the state of Brazil's telecommunications infrastructure was insufficient to rise to such a major occasion where demand for services would be sky high. In this context, though mobile penetration approached 140% by 2011, most of the people who had access to the network were people who lived in cities and highly populated urban areas.

Although the National Broadband Plan (PNBL; see Anatel, 2014) had ambitions to extend connectivity to all Brazilians located throughout the country's territory, the reality is that to do so would be a heavy lift even during a time the economy was booming: Brazil's geography is diverse, and there are several areas such as the Amazon rainforest where practical implementation challenges are substantial.

Previously, Brazil's telecommunications regulator Anatel had deployed other techniques recommended in the RBPF including enhancing market competition to expand access to affordable internet and nudging mobile network operators (MNOs) to undertake infrastructure rollouts in rural areas. Even with these actions, further regulatory action was still required from Anatel in order to entice MNOs to offer services in areas that were not commercially viable for them.

In 2021, Anatel unlocked the 'digital dividend' by holding a spectrum auction that allocated the 700MHz band to mobile services, which was key to promoting 4G and creating public services that could stimulate demand for the internet. The licences auctioned included coverage obligations and timetables designed to ensure that MNOs benefited from exclusive service offerings in some areas while requiring them to operate their services in other areas, both urban and rural. Underpinning all of these actions was a streamlined regulatory environment that explicitly encouraged telecommunications operators to share infrastructure to reduce operating costs since Anatel believes that spectrum is a limited public resource.

The outcomes of Anatel's interventions include that the four largest MNOs in Brazil initiated infrastructure sharing agreements, covering more rural populations where 30,000 people or less live. Claro and Vivo, two of these MNOs, deployed a total of 186 cell sites. Within two years of the auction, 15 million mobile subscriptions were added in the Brazilian market; by the time of the Olympics, Anatel approved a new infrastructure sharing agreement between Claro and Vivo that enabled them to boost their number of rural cell sites to just over 400. Nearly 6 million people living in rural areas of Brazil were connected to the internet for the first time due to the work of these two MNOs by 2018, going a long way to realise the national digital inclusion agenda.

KENYA: REDUCING TAX COSTS ON CONNECTIVITY

Today, Kenya is known for being one of the most forward-thinking countries in sub-Saharan Africa from a digital standpoint. This reputation was made possible by several government measures that enhanced access and affordability to telecommunications services.

Early work by the Government of Kenya involved the development of its ICT policy in 2006, which was quickly followed by the launch of the Vision 2030 plan in 2008. Each of these documents place science, technology, and innovation at the forefront of efforts to promote socio-economic development in the country. Strategic contract negotiation to bring the TEAMs and SEACOM fibre optic cables to East Africa, the first for the region,

occurred during this period as well. Despite these actions, by 2009 Kenyans were paying 16% VAT for mobile devices and a staggering total of 26% in VAT and airtime taxes for mobile services. This rendered mobile a luxury for most and low mobile teledensity masked the great demand for mobile services that was present by this time.

Recognizing that, on its own, competition was no longer sufficient to expand internet access, the government exempted all mobile handsets from VAT just as the internet superhighway arrived. This timing enabled new mobile services to proliferate and encouraged mobile ownership by the masses: mobile teledensity grew to reach 70% of the population while the number of mobile devices purchased increased by over 200%. As the customer base for mobile services grew, a price war saw the three Kenyan MNOs lower their prices substantially to attract and maintain customers, citizens enjoyed more affordable services, and government revenues from the sector even grew. The focus on bringing people online enabled the Government of Kenya to initiate a virtuous circle that ultimately benefited all stakeholders.

ARGENTINA: ENABLING COMMUNITY NETWORKS TO THRIVE

Argentina has long grappled with the challenge of how to bridge the digital divide among its wealthier, urban-located citizens and those who are based in poorer, more rural regions with lower population density. In 2014, the government began to seriously consider the role that community networks can play in this area since such networks provide a potential solution to covering harder-to-reach and more expensive to service customers who were often in rural and remote areas. Equipped with the knowledge that a lack of a formal status for community networks means that they were subject to limitations that prevented fundraising and access to spectrum, the Argentinian government introduced Law 27,078. This law made the development of ICTs part of the mission of its telecommunications regulator, Enacom, since it is in the public interest to develop these resources.

Four years later, Enacom implemented regulatory resolution 4958 as a way to leverage the potential reach of community networks to help the regulator meet its universal service obligations. Following the implementation of this resolution, community networks could formalise themselves with the government and be officially recognized as service providers.

The benefits of doing so include the possibility to acquire basic infrastructure as a non-profit organisation and exemption from some regulatory fees to which other network operators were subject. The advantage of this approach was that communities that were unconnected could more easily make moves to launch their own network.

Argentina's transformation with this resolution was also in line with the International Telecommunication Union's (ITU) Recommendation ITU-D19 to aid the entry of smaller players into the telecommunications market (ITU, 2010), particularly where their presence could be beneficial to people living in rural and remote parts of the country. Community networks in Argentina like AlterMundi have been able to change the lives of consumers in their coverage areas through training provision, ongoing network support, and even free software development to help bring networks online.

GHANA: EXPANDING RURAL ACCESS WITH INNOVATIVE TECHNOLOGY

During the past five years, technological innovations to help bring meaningful connectivity to people living in rural areas have proliferated. One such innovation that is making waves in Ghana is OpenRAN. OpenRAN is a virtualized, open, and software-based architecture that can deliver scalable connectivity solutions for 2G, 3G, 4G, and even 5G networks. OpenRAN costs less than traditional network architecture and has excellent performance for mobile data services where latency is concerned. Through its Investment Fund for Electronic Communications (GIFEC), Ghana is pursuing universal access by working with a firm to leverage OpenRAN to facilitate mobile connectivity for areas of the country that are currently under- or unserved.

In 2008, the Government of Ghana brought the Electronic Communications Act 2008 (Act 775) into force with the express aim to deliver ICT services to the neediest and most deprived of its citizens. Tapping into the GIFEC funds for the OpenRAN project initiated in April 2020 was done in response to the statistic that over 1,000 communities in Ghana currently have no mobile signal. The impetus for using OpenRAN to help fill the connectivity gaps is that such networks do not need to rely on hardware to run, which eliminates the expensive upgrade costs traditionally associated with hardware-based networks.

The overall aim is to ensure connectivity is enabled for Ghanaians wherever they may be located and to speed the go-to-market timeline for digital services that will be built over these new networks in rural areas.

PERU: INNOVATING BUSINESS MODELS FOR GREATER RURAL COVERAGE

About 22% of the population of Peru lives in rural areas and by 2017, mobile penetration in the country was approaching 80%. Despite these access levels, a large proportion of Peruvians do not have mobile broadband and in 2018, at least 80% of towns in Peru had no internet coverage, especially if they were located in rural areas. For Peruvians living in the area of the Andes mountain range, before June 2019 it was impossible to go online because the infrastructure to do so did not exist there.

Through a series of legislative manoeuvres and innovative program creation, the Government of Peru has worked to transform these circumstances so that rural populations are not excluded from the digital revolution. One of the first steps taken was the introduction of the Telecom Law, which enabled the creation of the Telecom Investment Fund. This fund was designed to facilitate finance for telecommunications infrastructure deployment and service provision in rural areas, with funds coming from telcos' annual revenue. To help lessen the financial burden on network operators, the government went further by promoting infrastructure sharing so that rural populations can benefit from such collaborations in the private sector. Law No. 28295 promotes telecoms sector competition and enables infrastructure sharing to reduce costs for rural network deployments.

The government also began the *Internet para Todos* (IpT, or 'Internet for Everyone' in English) initiative, a public-private partnership, in June 2019. This PPP aims to connect 6 million rurally located Peruvians by the end of 2021. As a tool for the government to bridge the digital divide, the IpT is furthering this goal by adopting a revenue sharing model to reduce network implementation costs, deploying more inexpensive, innovative OpenRAN network architecture and technologies, offering wholesale access to 3G and 4G broadband infrastructure, and works in partnership with local communities to help reduce deployment costs.

To date, over 1,000 rural communities have benefited from IpT and 1.5 million people have been able to access the internet for the first time. With over 3,000 cell sites upgraded from 2G to 4G, the IpT has also taken great strides to make the connectivity meaningful. One community named Moya, which is located in the Andes at 3,160 metres above sea level, was one of the first to benefit from being connected and people living there can now make video calls to reconnect with their loved ones, boost tourism through promotion of local attractions online, and even learn at school using digital tools.

JAMAICA: ALIGNING LIBRARIES AND USAFS FOR RURAL PUBLIC ACCESS

Universal Service and Access Funds are often a major component of a government's ability to help extend internet access into rural areas. Libraries are one of the venues where countries frequently situate public access not only because these places are generally known for their safety and but also because they are sites where people can learn and develop new skills (A4AI, 2021). In Jamaica, its Universal Service Fund (USF) is used in part to support the Jamaica Library Service (JLS) in its quest to provide meaningful connectivity to all citizens.

Since January 2009, the USF has enabled donations of computers and various software packages (antivirus, office suite, etc.) needed to keep the devices running properly (JLS, 2022). A top-up to the initial level of funding (US $440,176) for the JLS was given in 2013, adding a further $33,000 to purchase more public access computers and software. In parallel, the USF has allocated 44 wide area network connections to major public libraries, including libraries where internet service was not commercially viable, enabling these institutions to interconnect while also provisioning high-speed internet access for people who visited the benefiting libraries (The Gleaner, 2017).

In 2019, the government announced further funding to establish more community access points, including in St. James and Portland, both rural parts of the island (JLS, 2019). All access points make the internet available for low or no cost to people of all ages and a variety of digital citizen services are made available to enhance civic participation. People can even bring their own devices to libraries in Jamaica covered by the USF if they do not own one and can learn how to use computers through free training courses offered.

The strategy here demonstrates the potential for community institutions, like libraries, to align with the mandate of the Universal Service & Access Fund to deliver expanded affordable and meaningful connectivity to underserved communities. In particular, these options hold a unique prospect in reducing the cost barrier to use more expensive equipment, such as desktop or laptop computers, and to develop skills through on-site educational support.

MEXICO: OPENING SPECTRUM FOR RURAL EMPOWERMENT

In Mexico, indigenous populations are empowered under the Mexican Constitution to develop their own systems of organising themselves, including how they communicate with one another. Because of this, appropriate technologies that enable these communities to meet their goals are used to enable these populations to ensure that they remain connected in the manner that they desire and have the ability to achieve.

Beginning in 2015, the Instituto Federal de Telecomunicaciones wrote the "social" use of spectrum into their frequency plan (Song, 2015), setting aside 2 x 5MHz of spectrum in the 800MHz band. In order to access this spectrum, service providers needed to serve communities of 2500 people or less, provide the service in an indigenous region, and/or provide the service in an area designated as a priority zone. This change helped build upon groundbreaking work that a non-profit organisation (Rhizomatica) was already doing in Oaxaca, where it has been providing GSM services to indigenous populations since 2012. Although it was acknowledged that this spectrum allocation was not much compared to larger mobile network operators in the country, it was an amount sufficient to effectively provide internet access to populations.

Beyond the "social" use spectrum, Mexico also included minimum service obligations for people living in rural areas, specifying that to bid for a licence an operator must be willing to provide services in about half of the localities with populations between 1,000 and 5,000 people who were unconnected. In 2018, the government also developed a public-private partnership called *Red Compartida* (or in English, shared network; Cave et al., 2018) whereby they contributed 90 MHz of spectrum in the 700 MHz band while private sector partners must then invest into and manage the 4G network following the government's contributions. The minimum initial coverage to take part in the *Red Compartida* is 30%, and the government aims to cover 92% of the population by January 2024.

The approach taken by the IFT is multi-pronged and centres indigenous and remote communities. As one of the first governments to explore these approaches, Mexico serves as a prime example of how strategic rural broadband policies can help achieve universal access. In particular, this example highlights the potential for innovations in spectrum policy for non-traditional operators to provide meaningful services to new communities.

Policymakers must act now to close the most stubborn challenge ahead – the meaningful connectivity gap in rural areas

Target 9.c within the Sustainable Development Goals sets the ambition to 'significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in [L]east [D]eveloped [C]ountries by 2020.' The current trends for internet access generally and meaningful connectivity specifically are far from reaching that target.

Instead, evidence to date suggests that **affordable and meaningful connectivity in underserved and unconnected rural and remote areas of LDC countries will be more difficult now than in any other conditions faced before.** Geographic and economic barriers present steep initial challenges for capital investment. The easy parallels of poverty, geography, education, and connectivity discourage innovation that require early investment for long-term returns.

However, the importance of acting now has become increasingly obvious. Meaningful connectivity and personal computer ownership both correlate with higher informational autonomy and digital participation. This trend remains consistent across national boundaries, gender, and geography. For governments looking to build scalable digital economies, they must start from inclusive foundations of meaningful connectivity.

To achieve this target, governments looking to increase meaningful connectivity in rural areas should adopt three strategies:

1. **Engage the Rural Broadband Policy Framework to design a connectivity strategy for rural areas.**
2. **Embed the Meaningful Connectivity framework within key ICT statistical indicators and policies to measure progress.**
3. **Leverage and expand public access solutions to offer greater access to desktops, laptops, and tablet devices where affordability remains a persistent challenge.**

Broadband policies will determine the pace at which meaningful connectivity becomes a reality for millions. Without adequate policy intervention, regulatory support, and government vision built around a rural broadband policy, millions of people in rural areas in Least Developed Countries will still only have unaffordable options for marginal connectivity – if any service at all. **Meeting the SDG target for universal access will require good broadband policy that brings together the experiences and learned wisdom of several countries to accelerate affordable and meaningful access to rural communities.**

A4AI ALLIANCE FOR AFFORDABLE INTERNET

A global coalition working to make broadband affordable for all

Putting Into Practice: Meaningful Connectivity in Rural Areas
Diagnostic Worksheet

This report offers a brief summary of where we are in terms of understanding and measuring what meaningful connectivity is, where it is (un)available, and what must be done to change the status quo. This closing section is a guided activity to begin the brainstorming process at the local level.

We recommend you assemble a relevant group of dedicated and diverse stakeholders to work together on this, where possible; however, one person can complete it on their own as well. It can be done virtually or in person, as a "sprint" workshop that would last around one hour or be conducted as an extended conversation broken into individual parts over a series of days or weeks, with focused activity at each stage.

By the end of this activity, you should have developed the following things:

- **Evidence for an initial presentation on meaningful connectivity in rural areas in your community,**
- **The materials for a call to action,**
- **An agenda for an inaugural policy dialogue on meaningful connectivity for rural areas in your community, and**
- **An invitee list to an event about meaningful connectivity for rural areas in your community.**

STEP 1: WHAT DATA DO WE HAVE?

Start first with understanding the context and setting you wish to consider. This can be done by looking at a wide array of sources of information about internet access and meaningful connectivity in your community.

Key questions:

- How many people have internet access today? Who are they, and where are they?
- How many people have meaningful connectivity?
- A 4G connection?
- A smartphone?
- An unlimited access point?
- Use the internet daily?
- Who are they?
- Where are they?

Potential resources:

- Your national statistical agency, for ICT user statistics
- Your telecommunications regulator, for market information
- The latest census in your country
- Reputable polling firms and surveys, e.g., Eurobarometer or Afrobarometer, for ICT use statistics
- International Telecommunication Union, for ICT use statistics
- Alliance for Affordable Internet, for policy indicators

[Space for your notes on what evidence there is of who has access and connectivity and who does not]

STEP 2: WHAT DATA IS MISSING?

At this stage, think about what themes or pieces of information are missing from what you have been able to collect in Step 1.

Key starting questions:

- Could you calculate meaningful connectivity based on the information you gathered? Why or why not?
  - Could you disaggregate the data by geography/location?
  - By gender?
- Can you find potential differences between internet use and meaningful connectivity? What are they, where are they, who experiences them, and what do they look like?
- What policies are relevant to this topic, and are they publicly available?

Also consider:

- Disaggregated data can be enormously helpful to understand the picture of meaningful connectivity in greater detail. Where might you be able to find such data?
- If pieces of data do not exist, who do you think should be collecting that data? Can you ask them to start collecting it?
- Do you have any data on the consequences of what kind of access people have? Differences between different groups based on their access?

[Space for your notes on what you don't know – and maybe how you might be able to get it in the future!]

STEP 3: WHERE IS THE PROBLEM MOST URGENT?

Through Step 2, you should have been able to identify gaps and/or shortcomings. This can be a comparison between different groups in your country/community, a comparison between your setting and another peer (for example, between two countries), or even just between what you see as the situation today and where you hope it will be in five years' time! Use this information to start understanding what may be unique to your setting and what needs to be done about it.

Key questions:

- Where do people not have internet access or meaningful connectivity?
- Are there particular groups of people who are less likely to have internet access or meaningful connectivity?
- What aspects of internet access or meaningful connectivity seem to be missing the most in your community?

Also consider:

- Has the problem been recognised by others? In the news? By civil society or industry groups? By the government?
- What does the current policy say about this? Are there any relevant targets?
  - What kind of targets do you think *should* be there?
  - How can you make those targets SMART (specific, measurable, achievable, realistic, and time-bound)?

[Space for your notes on what the agenda should be]

STEP 4: WHO NEEDS TO BE INVOLVED?

At this stage, you can probably consider yourself a community expert (or experts!) on meaningful connectivity. But every expert needs allies. Who is represented in your group so far? Who is missing? Use this time to agree on a list of potential stakeholders for your policy dialogue.

Key questions:

- Who is most affected by the status quo?
- Who holds the most power to change the status quo towards something better?
- Is there a particular perspective or community (e.g., an industry group, a gender lens, youth perspective) that you think is missing?

Potential allies:

- Ministers and civil servants in the relevant ministries, especially those for ICT, education, and finance
- Local officials in underserved rural and remote communities
- Industry representatives from current and prospective service providers
- Civil society groups, including women's groups, people with disabilities, and young people
- Librarians and other educators
- Technical experts, e.g., for community networking

[Space for your notes on who should be invited]

And that's it! You've taken your first four steps towards a policy dialogue on meaningful connectivity for rural areas in your community.

- Your answers to Step 1 provide a common understanding from which you can build an introductory presentation for your policy dialogue.
- Your answers to Step 2 offer some initial points of action to gather more information.
- Your answers to Step 3 can form your call to action to bring people together and also some ideas for the first agenda of your meeting.
- Your answers to Step 4 is your invitee list for your policy dialogue.

Good luck, and for any more support, please reach out to the Alliance for Affordable Internet when you need a technical ally in the process.

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