



CASE STUDY

INTERNET AND BROADBAND IN CAMEROON: BARRIERS TO AFFORDABLE ACCESS



Bamenda, Cameroon. Credit: Jean-Baptiste Dodane (© jbdodane.com)

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SUMMARY

Cameroon, lying in the heart of West Africa, is well known for the diversity of its landscapes, languages, people and cultures. Today, many of the proud nation's diverse inhabitants are united by a single factor—an inability to access the life-changing potential of the Internet affordably.

The country remains one of the least connected in the world—only 6 percent of Cameroonians use the Internet, and those that do pay heavily for the privilege, shelling out over 60 percent of average monthly income in the country for an entry-level fixed-line broadband package. The reasons for persistently high prices are multiple, complex and inter-linked—Cameroon suffers from limited international bandwidth, a monopoly in the fixed-line sector, severely limited competition in the mobile sector, a regulator struggling to come to grips with consumer protection demands, and weak civil society.

Yet despite these significant challenges, positive signs have recently emerged. The government has shown both momentum and willingness to innovate and develop the ICT sector, new submarine cable landing points will soon come on stream and a third mobile operator is set to enter the market later in 2014.

This short case study from the Alliance for Affordable Internet (www.a4ai.org) seeks to outline briefly the current status of connectivity in the country, analyse some of the reasons for high prices, and signpost challenges which must be overcome to make affordable Internet for all a reality. We hope it will be of relevance and use to all those fighting to drive down the cost of connectivity in the country, across the continent and around the globe.



1. THE CURRENT STATE OF CONNECTIVITY IN CAMEROON

Cameroon has one of the lowest Internet usage rates on the African continent and—despite a steadily growing Internet penetration rate (which averaged 14 percent growth per year between 2007 and 2011¹)—remains one of the least connected countries in the world², with just 6 percent of its population online in 2013.³

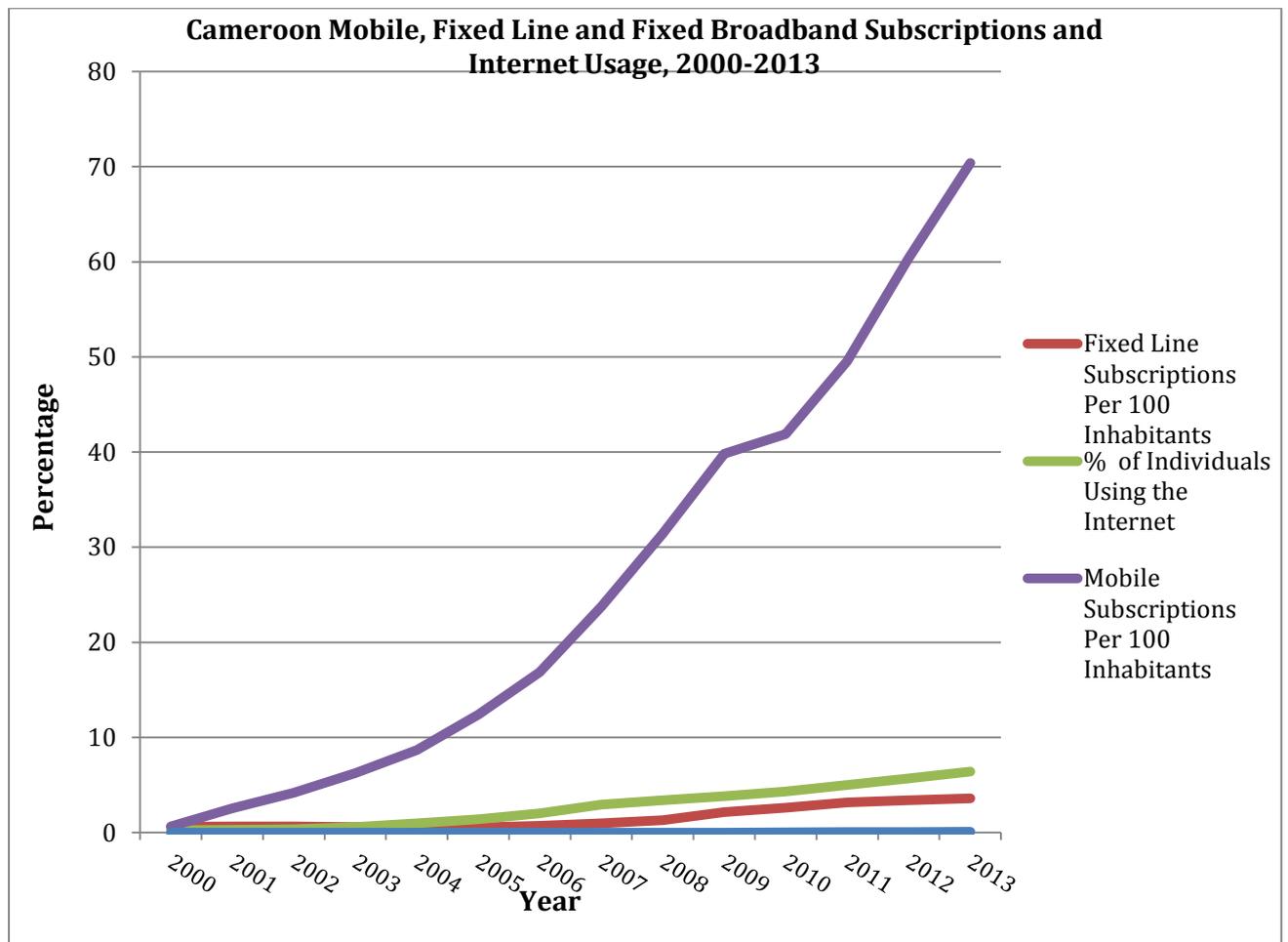


Figure 1: Internet Usage, Fixed Line, Mobile & Fixed Broadband Subscriptions, 2000-2013 (Source: [ITU](#))

¹ Supprimer les barrières au développement d'Internet en Afrique : suggestions pour améliorer la connectivité (a study by Analysys Mason for Internet Society)

<http://www.internetsociety.org/sites/default/files/Analysys%20Mason%20-%20Les%20barri%C3%A8res%20au%20d%C3%A9veloppement%20d'Internet%20en%20Afrique%20-vfinale.pdf>

² Measuring the Information Society, 2013 by ITU http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2013/MIS2013_without_Annex_4.pdf

³ ITU <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>



This situation persists despite some recent positive developments in the provision of ICT infrastructure and the presence of more than 60 licensed operators. Although there are many barriers to getting online in the country, there can be no doubt that the high cost to connect presents a significant obstacle to many Cameroonians who want to access the life-changing potential of the Internet. Today, affordable access remains but a dream for most of the nation's 21 million citizens.

A. CAMEROON'S TELECOMMUNICATIONS INFRASTRUCTURE

Cameroon has three international submarine cables that land on its territory (SAT-3, WACS, ACE), but only one of these cables (SAT-3) was in use as of May 2014. With only one submarine cable in service, international bandwidth in Cameroon remains a low 340 gigabytes—a figure that lags far behind some of its West African neighbours (*e.g.*, Ghana, which is connected to four submarine cables including the WACS and ACE, has a bandwidth capacity of 12 terabytes for its population of nearly 26 million).⁴ The need for Cameroon to utilise the WACS and ACE cables is urgent; the additional use of just the WACS cable, for example, could bring Cameroon an additional 5,120 gigabytes of capacity.

Cameroon has also not yet developed an Internet Exchange Point (IXP). The idea of implementing an IXP in Cameroon was first introduced in 2008 and though the idea has since been developed and supported by the Agence Nationale des Technologies de l'Information et de la Communication (ANTIC) (the agency in charge of ICT promotion in Cameroon) and the World Bank, progress on the project has been slow.⁵ In December 2013, the Cameroon Internet Exchange Point (CAMIX)—whose board members include representatives from both private sector operators (*e.g.*, Ringo, CAMTEL, MTN, Creolink) and consumer-focused civil society organisations (*e.g.*, Internet Society)—was tasked by the Ministry of Post and Telecommunications with the design and implementation of this infrastructure, but concrete steps towards its development and launch have not yet been taken.⁶

B. FIXED BROADBAND – WHOLESALE PROVIDERS AND PRICES

In order to offer broadband connections to consumers, Internet Service Providers (ISPs) in Cameroon purchase access to international gateways through the SAT-3 international fibre optic submarine cable, which is managed by Cameroon Telecommunications (CAMTEL).

⁴ Affordable Internet In Ghana: The Status Quo And The Path Ahead <http://a4ai.org/wp-content/uploads/2014/03/Ghana-Case-Study-Layout-Final.pdf>

⁵ ANTIC et FAI, ensemble vers l'IXP <http://www.antic.cm/index.php/nationale/10-actualites/138-antic-et-les-fai-ensembles-vers-lixp>

⁶ L'association des fournisseurs d'internet a son bureau http://www.minpostel.gov.cm/index.php?option=com_content&view=article&id=376%3Aassociation-des-fournisseurs-dinternet-a-son-bureau-&catid=49%3Aactualites&Itemid=27&lang=en



CAMTEL, Cameroon's national telecommunications company, is currently the country's only fixed-line broadband operator and, despite numerous attempts at privatisation, remains primarily in the hands of the Cameroonian government.⁷

Until 2012, CAMTEL was given exclusive rights to access the SAT-3 cable and this exclusivity over the gateway has enabled the company to charge high prices to ISPs with impunity. Operators are currently charged US\$2,100 to access the international gateway, the average cost of a STM1 ½ circuit is \$64,000⁸ and the monthly lease price for a STM1 ½ circuit departing from Cameroon can cost around \$1,600,000. In 2012, for example, the monthly lease price for a STM1 ½ circuit from Douala to Dakar, Senegal (3,200 km) was \$51/month/km, *i.e.* \$163,200/month. By comparison, the monthly lease for a STM1 ½ circuit from London to Moscow, which has a comparable distance of around 2,500 km, in 2012 cost \$2.30/month/km, *i.e.* \$5,761/month. ISPs, in turn, have passed the bulk of these costs on to Cameroonian consumers.

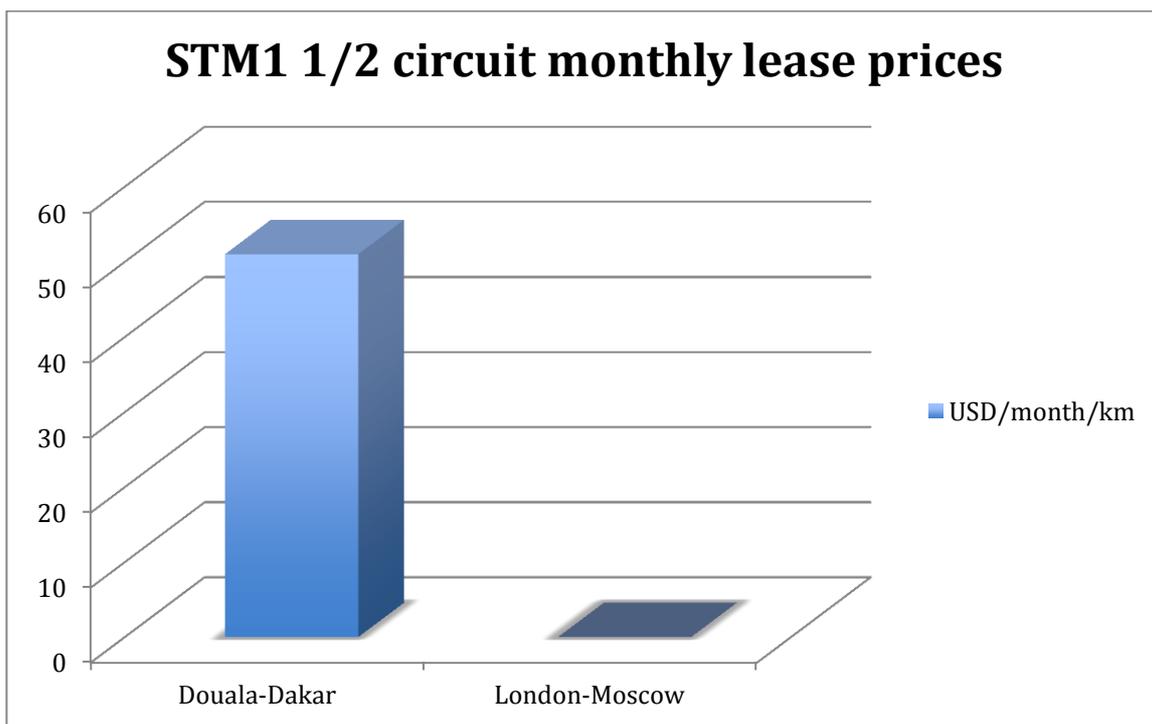


Figure 1: STM 1 ½ circuit monthly lease prices (Source: *Internet Sans Frontières, Telegeography*⁹)

⁷ Budde Comm, Cameroon – Telecoms, Mobile and Broadband – Market Insights, Statistics and Forecasts (2014), <http://www.budde.com.au/Research/Cameroon-Telecoms-Mobile-and-Broadband-Market-Insights-Statistics-and-Forecasts.html>

⁸ CAMTEL, Tariff Catalogue, 2013 (French) <http://www.art.cm:81/images/doc/catalogue%20camtel%20ofsva%202013.pdf>

⁹ African Bandwidth Review, http://www.telegeography.com/page_attachments/products/website/research-services/wholesale-bandwidth-pricing-database-service/0003/7155/African_Bandwidth_Review.pdf



C. THE PROMISE OF MOBILE BROADBAND

As in many Sub-Saharan African countries, mobile telephony in Cameroon has grown much faster than Internet usage. While the ITU cites Cameroon's mobile penetration rate as 61 percent, Cameroon's market subscription rate (*i.e.*, the number of unique subscribers) was estimated to be approximately 37 percent at the end of 2013¹⁰; an estimated 17 percent of these mobile users own a smartphone.¹¹

This relatively high mobile penetration rate may present Cameroon with an opportunity to increase Internet and broadband use rapidly. A survey conducted by Research ICT Africa in 2011 and 2012 showed that in Cameroon, only 30 percent of the Internet users surveyed used their mobile phones to access the Internet, with the majority still using an Internet café to access the Web.¹² Many Cameroonians do not use their mobile phones to access the Internet as a result of limited consumer choice in the mobile market, caused by an apparent lack of competition in Cameroon.

At the time of writing, just two operators were active in the market—MTN and Orange.¹³ Both have rolled out mobile broadband services using Wi-Max technology, but this has not helped them gain traction. In 2012, a third operator, Viettel, was granted a licence for 3G services, with a two-year exclusivity period. After a number of setbacks, Viettel is yet to launch operations, though recent reports suggest that it will do so in September 2014. However, these reports also suggest that Viettel will ask the government of Cameroon for an extension of its exclusivity period so that it effectively starts from the commencement of operations and not the signing of the contract.¹⁴

If mobile telephony is to help enhance affordable Internet access in Cameroon, there must be both an increase in the use of smartphones, as well as an extension of 3G and 4G infrastructure that will allow users to access efficient and high-speed mobile broadband. These types of developments invariably result from increased competition between operators and a policy and regulatory environment that, amongst other things, stimulates

¹⁰ GSMA (2013), Sub-Saharan Africa Mobile Economy 2013, http://www.gsmamobileeconomyafrica.com/Sub-Saharan%20Africa_ME_Report_English_2013.pdf

¹¹ Inside Mobile Africa, a study by M&C Saatchi Mobile <http://www.mcsaatchimobile.com/wp-content/uploads/2013/06/Inside-Mobile-Africa.pdf>

¹² Internet Going Mobile : Internet Access and Usage in Eleven African Countries <http://www.researchictafrica.net/presentations/Presentations/2012%20Calandro%20Stork%20Gillwald%20-%20Internet%20Going%20Mobile-%20Internet%20access%20and%20usage%20in%20eleven%20African%20countries%20.pdf>

¹³ <http://www.budde.com.au/Research/Cameroon-Telecoms-Mobile-and-Broadband-Market-Insights-Statistics-and-Forecasts.html>

¹⁴ Business in Cameroon (2014), Viettel asks government of Cameroon to extend its 3G monopoly, <http://www.businessincameroon.com/telecom/0504-4764-viettel-asks-government-of-cameroon-to-extend-its-3g-monopoly>



greater investment. MTN and Oranges licences are scheduled to be renegotiated in 2014 and both are expected to request 3G licences and spectrum in order to roll out services.

The government of Cameroon will have to deal with a number of vested interests and make historic decisions about the future of broadband in the country in 2014. Viettel will seek to exercise a potentially debilitating monopoly over 3G, while MTN and Orange will seek licences to roll out services and create competition. Many are waiting to see if the government will affirm its commitment to increasing broadband in Cameroon by providing licences with terms and conditions that promote investment in 3G and 4G infrastructure and services by multiple players.

D. CONSUMERS HAMSTRUNG BY HIGH PRICES

The toxic cocktail of limited international bandwidth, a monopoly in the fixed-line sector and severely limited competition in the mobile sector means that Internet access remains unaffordable for all but the most well-off Cameroonians.

The ITU's most recent "Measuring the Information Society" report ranks Cameroon 152nd out of 169 countries for fixed broadband costs. A fixed broadband connection costs 61 percent of GNI per capita.¹⁵ (Data for mobile broadband costs is not available.)

¹⁵ Measuring the Information Society, 2013 by ITU http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2013/MIS2013_without_Annex_4.pdf



Table 3.4: Fixed-broadband prices, Africa, 2012

Global rank	Regional rank	Economy	Fixed-broadband prices			GNI p.c., USD, 2011 (or latest available)
			as % of GNI p.c.	USD	PPP\$	
47	1	Seychelles	1.8	16.3	36.7	11'130
49	2	Mauritius	1.8	12.2	20.1	8'240
87	3	Gabon	4.8	31.8	45.7	7'980
88	4	South Africa	4.8	28.1	38.4	6'960
116	5	Botswana	9.2	57.3	97.4	7'480
120	6	Cape Verde	11.3	33.3	36.2	3'540
127	7	Angola	15.7	53.2	61.3	4'060
132	8	Namibia	17.5	68.7	88.6	4'700
137	9	Swaziland	27.5	75.7	124.0	3'300
139	10	Uganda	32.9	14.0	42.2	510
141	11	Ghana	36.6	43.0	51.6	1'410
142	12	Nigeria	39.0	39.0	68.0	1'200
143	13	Tanzania	42.4	19.1	54.9	540
144	14	Senegal	42.8	38.1	67.5	1'070
148	15	Côte d'Ivoire	46.2	42.4	64.0	1'100
149	16	Kenya	49.3	33.7	71.6	820
150	17	Zimbabwe	56.3	30.0	N/A	640
151	18	Cameroon	61.0	61.5	115.2	1'210
152	19	Ethiopia	71.0	23.7	74.0	400
154	20	Benin	81.5	53.0	107.6	780
156	21	Lesotho	84.0	85.4	132.4	1'220
157	22	Zambia	85.1	82.3	93.7	1'160
158	23	Burkina Faso	98.2	46.6	101.7	570
159	24	Mali	98.4	50.0	82.2	610
160	25	Togo	101.2	47.2	84.3	560
161	26	S. Tomé & Príncipe	103.0	116.8	163.1	1'360
162	27	Mozambique	149.3	58.5	107.4	470
164	28	Malawi	169.7	48.1	119.7	340
165	29	Madagascar	177.8	63.7	132.7	430
166	30	Niger	210.2	63.0	123.3	360

Note: N/A: Not available.

Source: ITU. GNI p.c. and PPP\$ values are based on World Bank data. USD exchange rates are based on IMF data.

Table 1: Fixed-broadband Prices, Africa, 2012 (Source: ITU 2012)

Cameroon also fares poorly in A4AI's own 2013 Affordability Index. The country ranks 40th out of the 46 emerging and developing nations surveyed, with an overall score of 17.1 (out of a possible 100). Cameroon's non-use of the WACS and ACE cables, as well as the country's failure to launch an Internet exchange point (IXP), contributed to the country's low score of 21.4 on the Communications Infrastructure sub-index.

Rank/Country	Sub-index: Communications infrastructure	Sub-index: Access and affordability	Affordability Index: Overall composite score
1. Malaysia	71.6	72.2	68.6
2. Mauritius	61.7	76.9	65.5
12. South Africa	41.4	63.2	46.6
16. Botswana	51	46	42.9
18. Kenya	34.2	60.1	40.7
19. Nigeria	30.7	61.2	39.3



20. Namibia	31.5	57.9	38
21. Uganda	33.4	54.8	37.3
22. Tanzania	40.4	43.1	34.9
24. Senegal	34.3	47.3	33.7
25. Zambia	32.7	48	33.2
30. Ghana	29.9	42.2	28.4
37. Burkina Faso	20.2	41.3	22.4
38. Rwanda	38	21.5	21.6
39. Benin	21	37	20.5
40. Cameroon	21.4	30.4	17.1
42. Mali	13.9	26.2	10.5
43. Ethiopia	0	28.2	3.7
44. Zimbabwe	4.7	23.1	3.6
45. Malawi	26.2	0	3.1
46. Yemen	11.3	9.7	0

Table 2: Affordability Report Rankings (Source: A4AI Affordability Report 2013)



2. POLICY AND REGULATORY DEVELOPMENTS AND CHALLENGES

A. NATIONAL ICT POLICY AND NEW LEGISLATIVE INSTRUMENTS

Cameroon's National Policy for the Development of Information Communication Technologies (ICT) was published in September 2007, but implementation has been slow.¹⁶ An extract from a 2007 InfoDev ICT for Education Survey highlights some of the challenges: "...the ICT sector in Cameroon still seems chaotic. There are no fewer than eight governmental players claiming authorship or supervision of the national ICT policy. The results are power struggles and subsequent appeasements which has a negative impact on ICT-related educational projects and programmes."¹⁷

Despite these ongoing policy implementation challenges, Cameroon has developed ambitious legislative instruments over the past three years. These instruments—designed to bring about more effective regulation of electronic communications and facilitate the expansion of the Internet and broadband services—have also encountered obstacles to their effective implementation.

Law No. 2010/013, which was passed in December 2010, governs electronic communications in Cameroon and, amongst other things, aims to promote universal service in the country. Under the law, Cameroon's telecommunications operators are required to provide "communications services of good quality, at affordable rates, and in an uninterrupted manner."¹⁸ With the knowledge that operators may not meet all their universal service obligations, the law essentially re-establishes the Special Telecommunications Fund for financing the development of electronic communications, including universal service efforts in those areas of the country where market failure has occurred. The resources of this Fund come primarily from contributions made by operators, who are required to contribute 3 percent of pre-tax net revenue.¹⁹

¹⁶ National Agency for Information Communication Technology (NAICT) (2007), National Policy for the Development of Information Communication Technology, [Online] Available from: http://www.ist-africa.org/home/files/Cameroon_NationalICTPolicy_2008.pdf, [Accessed 28th May 2014]

¹⁷ InfoDev (2007) SURVEY OF ICT AND EDUCATION IN AFRICA: Cameroon Country Report 46407 ICT in Education in Cameroon [Online] Available from: <https://openknowledge.worldbank.org/bitstream/handle/10986/10681/464070BR10Box310n010ICTedoSurvey11.txt?sequence=2>. [Accessed 28th May 2014]

¹⁸ Law n°2010/013 English version <http://www.art.cm:81/images/doc/lce%20version%20anglaise.pdf>

¹⁹ French version of the Decree

<http://www.art.cm:81/images/doc/decret%20%20308%20modalites%20de%20gestion%20fst%2026%20juin%202012.pdf>



Cameroon actually mandated the establishment of a Special Telecommunications Fund in 1998, with the enactment of Law No. 98/014 (the Telecommunications Act 1998).²⁰ While the “original” Fund collected nearly \$50 million in 10 years, it did not have a significant impact on Internet access rates in Cameroon.²¹ Questions have been raised concerning the use of the monies collected thus far, and the Fund’s overall effectiveness. In turn, some operators have become less than forthcoming with their contributions to the re-established Fund. The Minister of Posts and Telecommunications, Hon. Jean Pierre Biyiti Bi Essam, under the authority of the “new” Fund, recently reminded operators of the existence of the Special Fund and their obligation to contribute to it, but it remains to be seen if this legal obligation will be enforced.²² Many are now watching how this standoff will pan out—will the Fund start disbursing monies in an effective and transparent manner and, if not, will operators continue to pay their dues?

B. PROTECTING CONSUMER RIGHTS

A framework law, designed to strengthen consumer protection by providing for individual or collective legal action in the case of non-compliance by operators, came into effect in 2011.²³ Under the law, Cameroon’s telecommunications regulator, the Telecommunications Regulatory Board (TRB), is responsible for mediating disputes between consumers and operators. However, recent cases have highlighted just how difficult this obligation has been for the TRB to fulfil.

At the end of 2013, CAMTEL, Cameroon’s national telecommunications provider, introduced the “FAKO Internet package,” which offered consumers access to 30 days of 5GB Internet browsing for a price of 25,000 Cameroonian francs (roughly \$50). According to experts who expressed their opinion in the Cameroonian press, this new package violated consumer protection law by offering less than the package it replaced, which, for the same price, gave consumers 200 hours of Internet access for 30 days.²⁴ In response to consumer discontent and growing media scrutiny, CAMTEL told the public that the FAKO package was similar to those offered by operators in Western countries. Following this rather odd justification, consumers launched a petition decrying the move. Despite the continued expression of dissatisfaction by consumers, the TRB has not taken legal action and has yet

²⁰ Law n° LAW N° 98 / 014 OF 14 JUIL. 1998 English version <http://www.itu.int/ITU-D/treg/Legislation/Cameroon/law.html>

²¹ Le fisc va-t-il tuer la poule aux œufs d’or ? <http://www.ticmag.net/telecoms/international/466-telecoms-le-fisc-va-t-il-tuer-la-poule-aux-oeufs-dor-.html>

²² Le Fonds Spécial des Télécommunications en quête de cotisations https://www.cameroon-tribune.cm/index.php?option=com_content&view=article&id=74784:le-fonds-special-des-telecommunications-en-quete-des-cotisations&catid=2:conomie&Itemid=3

²³ Law n°2011/012 Framework on Consumer Protection http://www.digitcamlaws.net/GICAM/Law_framework_on_consumer_protection_in_Cameroon.pdf

²⁴ CAMTEL FAKO, ou Internet pour les riches <http://www.cameroon-info.net/stories/0,54667,@,cameroun-opinion-camtel-fako-ou-internet-pour-les-riches.html>



to even publicly comment on the issue.²⁵ This failure to respond to consumer concerns about FAKO is just one example of the way the TRB has not been able to fulfil its obligation to promote affordable access and enable significant growth of Internet penetration in Cameroon.

The TRB has occasionally shown a willingness to use its powers to stop abuses in the telecom sector. In March 2013, for example, it nullified CAMTEL's proposed catalogue of interconnections tariffs, which induced the company to present a revised catalogue with reduced tariffs for operators and for consumers.²⁶ Unfortunately, these instances of positive enforcement have been few and far between.

Many of the enforcement issues encountered by the TRB may be caused as a result of shortcomings inherent in the Board's formation and composition—its president is nominated by the decree of the President of the Republic, many of its members are representatives of the Cameroonian Government, and the Board is said to lack independence from the Ministry of Post and Telecommunications. The close relationship between the government and incumbent fixed-line provider CAMTEL has made it difficult for the TRB to adopt effective sanctions to counter any monopolistic behaviour undertaken by the company.²⁷ These and other longstanding structural challenges in Cameroon must be overcome to change the country's Internet story.

²⁵ NON à l'offre FAKO de Cameroon Telecommunications

http://www.petitions24.net/non_a_loffre_fako_de_cameroon_telecommunication_camtel

²⁶ Cameroun : Vers une démocratisation de l'accès à Internet ?

http://www.internetsansfrontieres.org/Cameroun-Vers-une-démocratisation-de-l'accès-a-Internet_a471.html

²⁷ The case for "Open Access" Communications Infrastructure in Africa: The SAT-3/WASC Cameroon Case Study https://www.apc.org/fr/system/files/APC_SAT3Cameroon_20080516.pdf



3. TACKLING OBSTACLES TO AFFORDABLE ACCESS

A. CAMTEL'S CONTINUED FIBRE OPTIC MONOPOLY

Many wait with bated breath to see if recent developments in Cameroon will lead to a change in the monopolistic position held by CAMTEL and a reduction in the cost of Internet and broadband services. The introduction of landing points for two additional sea cables in Limbé (WACS) and Kribi (ACE) has theoretically presented ISPs with the leverage needed to negotiate the cost of international bandwidth with CAMTEL. Yet some fear that Cameroonians will be subject to the same market forces, or lack thereof, that have stifled effective competition, slowed the development of services and kept prices artificially high.

The recent signing of a Memorandum of Understanding (MoU) between CAMTEL and MTN Cameroon, which presents a framework for the management of access to WACS, suggests this leverage may have been lost already.²⁸ Under the terms of the MoU, MTN Cameroon has surrendered the landing point and transferred its property rights to the State of Cameroon.²⁹ Thus, CAMTEL will be able to exercise monopoly control over the two sea cables (SAT-3 and WACS), and probably over the future ACE landing-point at Kribi.

Despite the control it will have over the landing points, CAMTEL is unlikely to have total freedom over what it charges for bandwidth on the new cable. MTN and Orange are expected to take bandwidth pricing down to 50 percent of its current cost, and negotiations could succeed because of their respective shares in the WACS and ACE cables consortiums. While MTN and Orange will likely see an improvement in their position, smaller ISPs that lack the negotiating position of these big multinationals may not.

CAMTEL's monopoly on fibre optic infrastructure extends also to Cameroon's terrestrial fibre optic network, further undermining efforts to increase Internet and broadband access and affordability.³⁰ It appears CAMTEL's monopoly is protected even when other providers are willing and able to connect the unconnected. Recently, the TRB fined the power utility

²⁸ Câble Wacs : Le transfert de propriété au Cameroun de la station de Limbé est en vue
http://www.minpostel.gov.cm/index.php?option=com_content&view=article&id=348%3Acable-wacs-le-transfert-de-propriete-au-cameroun-de-la-station-de-limbe-est-en-vue&catid=49%3Aactualites&Itemid=27&lang=fr

²⁹ L'Etat Camerounais va expertiser la facture de MTN concernant le point d'atterrissage du câble WACS
<http://www.agenceecofin.com/gestion-publique/1903-18515-l-etat-camerounais-va-expertiser-la-facture-de-mtn-concernant-le-point-d-atterrissage-du-cable-wacs>

³⁰ MTN Cameroon souhaite la fin du monopole sur la fibre optique et sollicite une licence 3G
<http://www.237online.com/article-31205-cameroun--accus-internet-mtn-accuse-le-gouvernement--cameroon.html>



AES Sonel \$1 million for illegally installing 700 kilometres of fibre optic cable.³¹ AES Sonel said it would use the cables to enhance its information systems processing, and added that it was willing to connect these cables to neighbouring schools.³²

While it is important that a regulator like TRB regulate the market in line with gazetted legislation and regulations, even if they mandate a monopoly, such examples have led some to even question the effectiveness of TRB when it comes to facilitating the very limited amount of new competition that has been permitted in Cameroon.

According to some observers, CAMTEL's exclusive control over fibre optic infrastructure and TRB's inability to provide a level playing field has, in part, played a role in limiting the success of new market entrants in Cameroon. In the last few years, the challenges faced by Viettel and other new licensees like Yoomee, which has an original WIMAX system, have been attributed to a non-conducive regulatory environment. As indicated above, Viettel has not yet commenced operations, and Yoomee has chosen a sector-specific strategy, focused on high-quality services based on connectivity guarantees rather than basic access services.

B. OPEN ACCESS PUSHBACK

Cameroon's decision not to implement an open access regulatory framework, despite evidence of the potential benefits to infrastructure roll out, access, and affordability, provides further ammunition to those suggesting that recent developments in the country might mean that affordable access for all Cameroonians remains a long way off.

The World Bank project "Central African Backbone" (CAB) was designed and adopted in 2007 by the World Bank, African Union, African Development Bank and ITU, and has been endorsed by the governments of the Central Africa Economic and Monetary Community (CEMAC). The project is expected to decrease telecommunications costs throughout the region, especially in landlocked countries, like Chad and the Central African Republic, that lack fibre optic access.

Cameroon telecommunications agencies, such as CAMTEL, the Ministry of Post and Telecommunications, and the TRB, were reluctant to implement any form of open access regime and challenged the development of this fibre optic backbone. A multi-stakeholder

³¹ After a half a billion fCFA penalty imposed by the TRA, AES Sonel prepares its defence
<http://www.businessincameroon.com/telecom/1801-4586-after-a-half-a-billion-fcfa-penalty-imposed-by-the-tra-aes-sonel-prepares-its-defence>

³² Cameroun : Le régulateur des Télécoms sanctionne AES Sonel
<http://economie.jeuneafrique.com/regions/afrique-subsaharienne/21139-cameroun-le-regulateur-des-telecoms-sanctionne-aes-sonel.html>



model was proposed to Cameroon in order to prepare for the future arrival of new cables and their regional integration and shared management.

However, Cameroon's government chose not to implement the legal framework designed to underpin CAB and unleash the benefits of open access. Instead, perhaps fearing the loss of its control over SAT-3, the government chose to sign an agreement with China's Huawei Technologies, which led to the construction of a 3200km optical fibre backbone network.³³ While proponents of the Huawei cable might argue that its financing and construction came with fewer attached conditions than a deal with alternative sources like the World Bank, those against the project argue that it will ultimately prove to be more expensive, and that it will not facilitate the competition Cameroon needs.³⁴

Whether the Huawei cable will bring the reduced bandwidth costs and increased access that open access frameworks have brought elsewhere remains to be seen.

³³ Optical fibre backbone network in Cameroon <http://china.aiddata.org/projects/201>

³⁴ After having signed with Cameroon several commercial agreements in 2008, China launched a vast program of fiber optic in December 22, 2009 at Kye-Ossi (South Cameroon). Huawei has already added 3200 km of fiber optic to the already existing 3,800 km. The network will be extended to a length of 10,000 km and might cost around 30 billion FCF (Eximbank China 26 billion FCFA; Cameroon Telecommunications (CAMTEL), 4,5 billion



4. INCORPORATING CIVIL SOCIETY

Civil society in Cameroon has been unable to combat government decisions—like those made over open access—that are not in line with international best practices.

The TRB has listed 25 consumer protection associations on its website, but none of them have been active on the issue of affordability.³⁵ This inactivity results primarily from insufficient financial means to pursue their missions, but also partially as a result of feelings that the TRB has done little to support their development through dialogue and consultation. The lack of a civil society voice in the telecommunications debate in Cameroon has favoured the incumbent operators and has negatively impacted consumer protection.

International organisations are working with Cameroonian civil society actors to increase participation and amplify their power to promote increased Internet access. With the support of these organisations, stakeholders in Cameroon have been able to meet and discuss key challenges to increased access, including affordability. The Citizen's Governance Initiative, an association that seeks to address the absence of opportunities for citizen participation in governance in Cameroon and across Central Africa, organised a BarCamp in February 2014 on Internet access and cost, which allowed a range of stakeholders to come together to highlight some of the key challenges to access and affordability in Cameroon. Increased capacity and further support for similar events will allow Cameroon's civil society to increase their involvement in Cameroon's ICT sector debate, and to work more effectively to reduce Internet costs and increase access in the country.

³⁵ List of some consumers protection associations
http://www.art.cm:81/index.php?option=com_content&task=view&id=38&Itemid=154



5. THE WAY FORWARD FOR CAMEROON

Cameroon's expanded infrastructure and growing operator network are promising steps in the quest to reduce Internet access costs and bring more Cameroonians online. In order to unleash the full potential of these developments, however, certain changes to the status quo must be made, including the renegotiation of CAMTEL's monopoly over international submarine and terrestrial cables, increased regulatory enforcement and consumer advocacy by the TRB, and the development of a stronger, more involved civil society.

Key questions to consider in the coming years include:

- Will the Telecommunications Regulatory Board be able to gain the independence needed in order to fully play its role as a neutral regulator?
- Will greater independence help the TRB mitigate the effects of CAMTEL's monopoly on infrastructure access?
- Will the TRB fulfil its consumer protection responsibilities?
- Can capacity building and empowerment of civil society organisations on the issue of Internet access and affordability help this sector become important guardians of consumer protection in Cameroon?
- How can operators seize the opportunity to negotiate new international bandwidth access tariffs imposed by CAMTEL?
- Will investment in 3G and 4G help Cameroon take advantage of the widespread use of mobile telephony?
- Will Viettel be a fair competitor in the 3G mobile broadband sector?
- Will the TRB allow unlicensed use of the fibre optic network, thus putting an end to CAMTEL's monopoly and enabling a competitive broadband market?
- Can an audit of the Special Telecommunications Fund be considered, in order to create a new frame for a better collaboration between the Cameroon government and private sector to achieve universal service?
- Can the implementation of a national IXP enhance affordability in Cameroon?



ABOUT THE ALLIANCE FOR AFFORDABLE INTERNET

Launched in October 2013, the Alliance for Affordable Internet (A4AI- www.a4ai.org) is a global coalition committed to driving down the cost of Internet access in less developed countries.

A4AI focuses on creating the conditions for open, efficient and competitive broadband markets via policy and regulatory reform. Through a combination of advocacy, research and knowledge sharing, the Alliance aims to facilitate the achievement of the UN Broadband Commission target of entry-level broadband services priced at less than 5 percent of average monthly income. In doing so, A4AI will help to connect the 60 percent of people in developing countries who currently cannot access the Internet.

A4AI's 60+ members and local partners are drawn from both developed and less developed countries and include public, private and not-for-profit organizations. The World Wide Web Foundation, founded by Web inventor Sir Tim Berners-Lee, initiated the Alliance. Members include Google, Omidyar Networks, USAID and the UK DFID.

For more information, visit: <http://www.a4ai.org>.