

## Building on progress: Infrastructure development still a major challenge in Africa

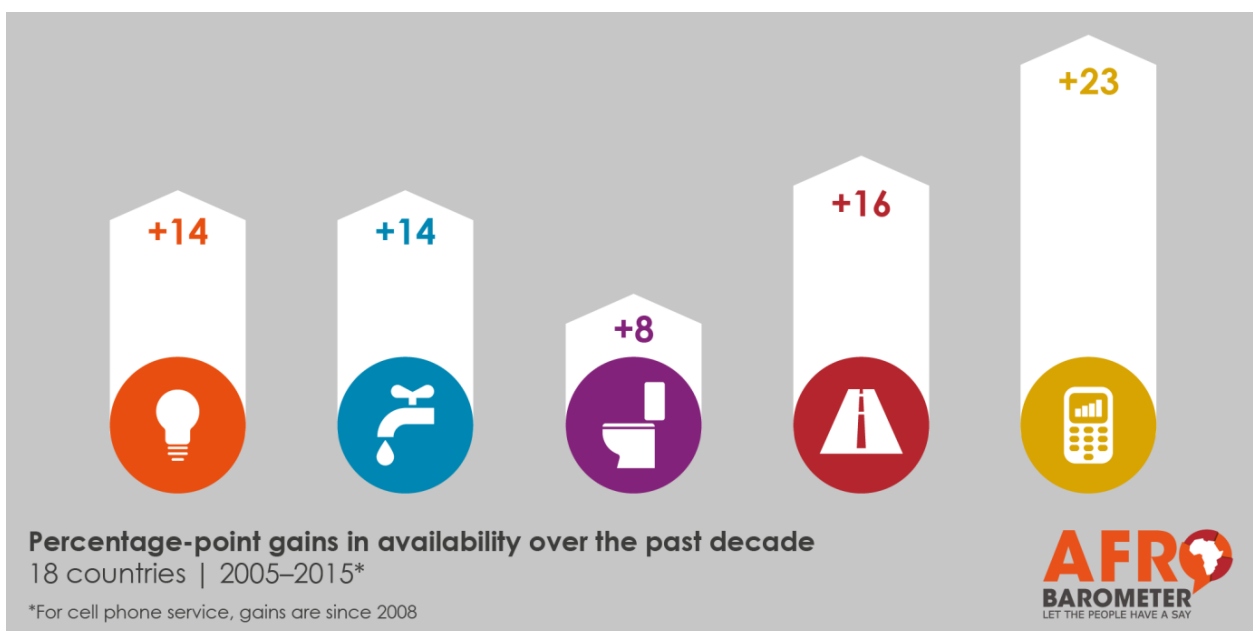
**Afrobarometer Dispatch No. 69 | Winnie V. Mitullah, Romaric Samson, Pauline M. Wambua, and Samuel Balongo**

### Summary

Infrastructure is a bedrock for development. As an essential part of a supportive environment for investment and livelihood, adequate infrastructure promotes economic growth, reduces poverty, and improves delivery of health and other services (World Bank, 2014; Wantchekon, 2014). The African Development Bank (AfDB), whose Strategy for 2013-2022 makes infrastructure development one of its five operational priorities, notes that “Africa still has massive infrastructure needs” yet invests only 4% of its gross domestic product (GDP) in infrastructure, compared to China’s 14% investment. The AfDB estimates that “bridging the infrastructure gap could increase GDP growth by an estimated 2 percentage points a year” (African Development Bank, 2013).

Both political leaders and ordinary citizens emphasize the importance of infrastructure development in Africa. Under the leadership of the African Union, the New Partnership for Africa’s Development, and the AfDB, the Programme for Infrastructure Development in Africa is designed to address an “infrastructure deficit in Africa [that] penalises growth and development of the continent.” As South African President Jacob Zuma said during the program’s launch in 2010, “Africa’s time has come, and without infrastructure, our dreams will never be realised” (New Partnership for Africa’s Development, 2010).

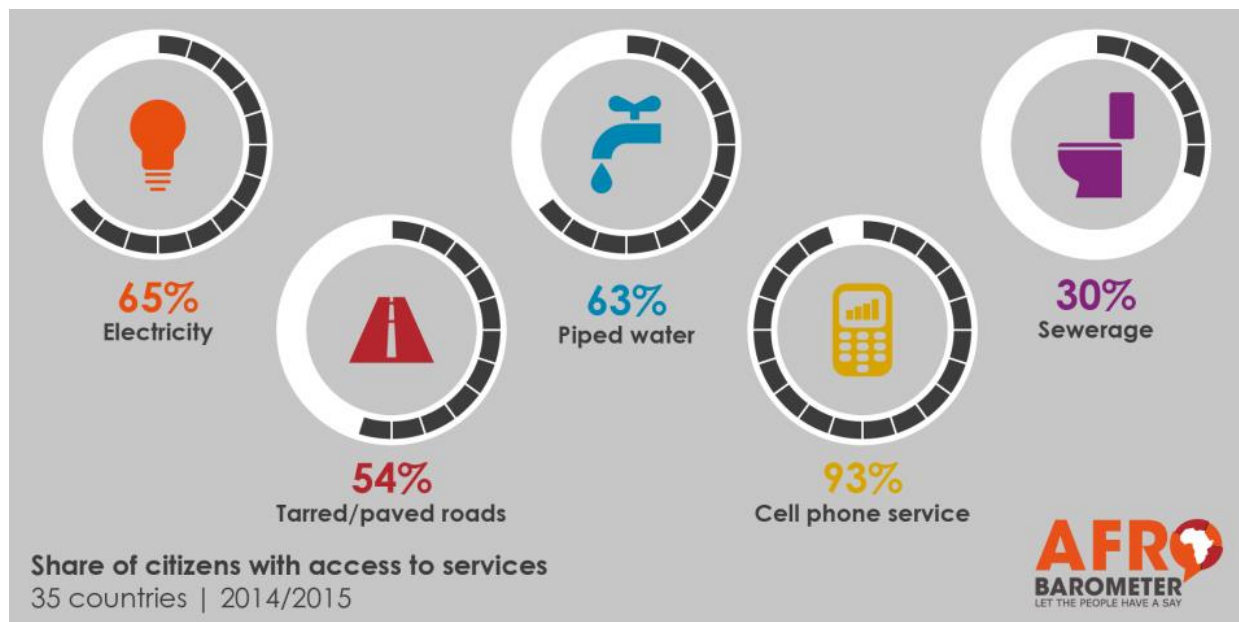
Like their leaders, African citizens call for greater investment in infrastructure. Asked what they consider the most important problems facing their country, 22% of Afrobarometer survey respondents in 32 countries cited infrastructure and transport among the top three problems



that government should address – only unemployment, health, and education ranked higher (Bentley, Olapade, Wambua, & Charron, 2015). When asked about their priorities for increased government spending across six key sectors, about one in four respondents said they would prioritize infrastructure.

To assess and track citizens' access to basic infrastructure, Afrobarometer records direct community-level observations of the presence and absence of infrastructure in the many communities visited by its field teams. This paper focuses on five basic types of infrastructure: electricity, piped water, sewerage, tarred/paved roads, and cell phone service. (Later publications will report on other services, such as health, school, police, and bank services.)

Findings show that despite some progress, infrastructure remains an enormous challenge. While a few countries have achieved universal coverage for electricity and piped water, and several have made major progress over the past decade, in other countries less than one in five citizens have access to these essential services. Only about half of citizens live in zones with tarred or paved roads. Sewerage is especially rare, available to less than one in three citizens, and very little progress has been made over the past decade in expanding access to this service. The exception is cell phone service, which has rapidly increased in recent years and is now available to 93% of Africans.



Availability of infrastructure varies widely by region – with North Africa ranking first and East Africa last on most services – as well as by country. Rural residents remain particularly disadvantaged; on average, less than half of rural residents have access to electricity, piped water, sewerage, or tarred/paved roads, and urban-rural access gaps within countries range up to 90 percentage points.

### Afrobarometer survey

Afrobarometer is a pan-African, non-partisan research network that conducts public attitude surveys on democracy, governance, economic conditions, and related issues across more than 30 countries in Africa. Five rounds of surveys were conducted between 1999 and 2013, and findings from Round 6 surveys (2014/2015) are currently being released. Afrobarometer conducts face-to-face interviews in the language of the respondent's choice with nationally representative samples that yield country-level results with margins of error of +/-2% (for samples of 2,400) or +/-3% (for samples of 1,200) at a 95% confidence level.

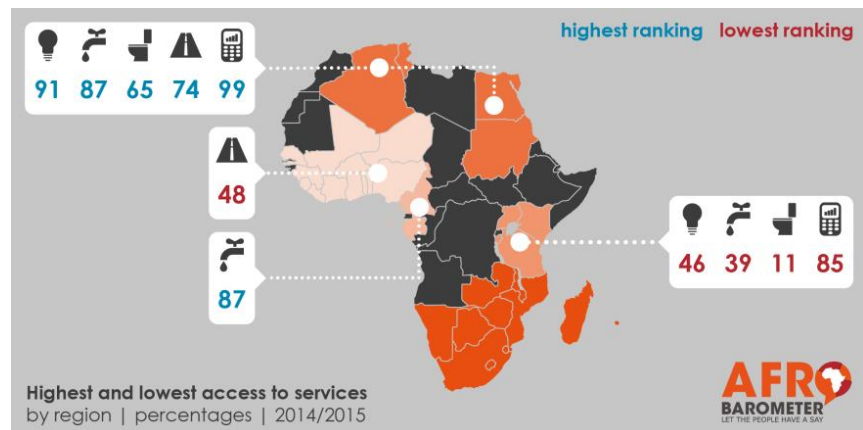
The contextual data on service infrastructure reported here are captured before and after interviews with survey respondents. Afrobarometer field teams make on-the-ground observations in each sampled census enumeration area (EA) that they visit about the services and facilities that are available in the area. These observations are recorded and confirmed by survey field supervisors. Since the EAs visited are selected to represent the population of the country as a whole, these data provide reliable indicators of infrastructure and service availability.

This dispatch uses data from 35 countries (see Appendix Table A.1 for a list of countries and fieldwork dates). Interested readers should watch for additional findings to be released over the coming months (see <http://afrobarometer.org/countries/results-round>).

## Key findings

- Provision of basic service infrastructure remains a challenge. On average across 35 African countries, only about two-thirds of citizens live in communities with an electric grid (65%) and/or piped water infrastructure (63%), and less than one in three have access to sewerage (30%). More than three times as many have access to cell phone service (93%), while about half (54%) live in zones with tarred or paved roads.
- Eighteen countries tracked since 2005/2006 show steady, though slow, progress in infrastructure development. On average, the availability of all five services has increased. Sewerage shows the least progress, with access increasing by just 8 percentage points over the past decade.
- Countries vary enormously in their provision of basic service infrastructure. For example, while availability of electricity and piped water is universal in Mauritius and Egypt, only 17% of Burundians live in zones with an electric grid, and only 17% of Liberians have access to piped water.

- Regional comparisons show North Africa with the best availability of all five services, followed closely by Central Africa. East Africa ranks last in the availability of electricity, piped water, sewerage, and cell phone service.

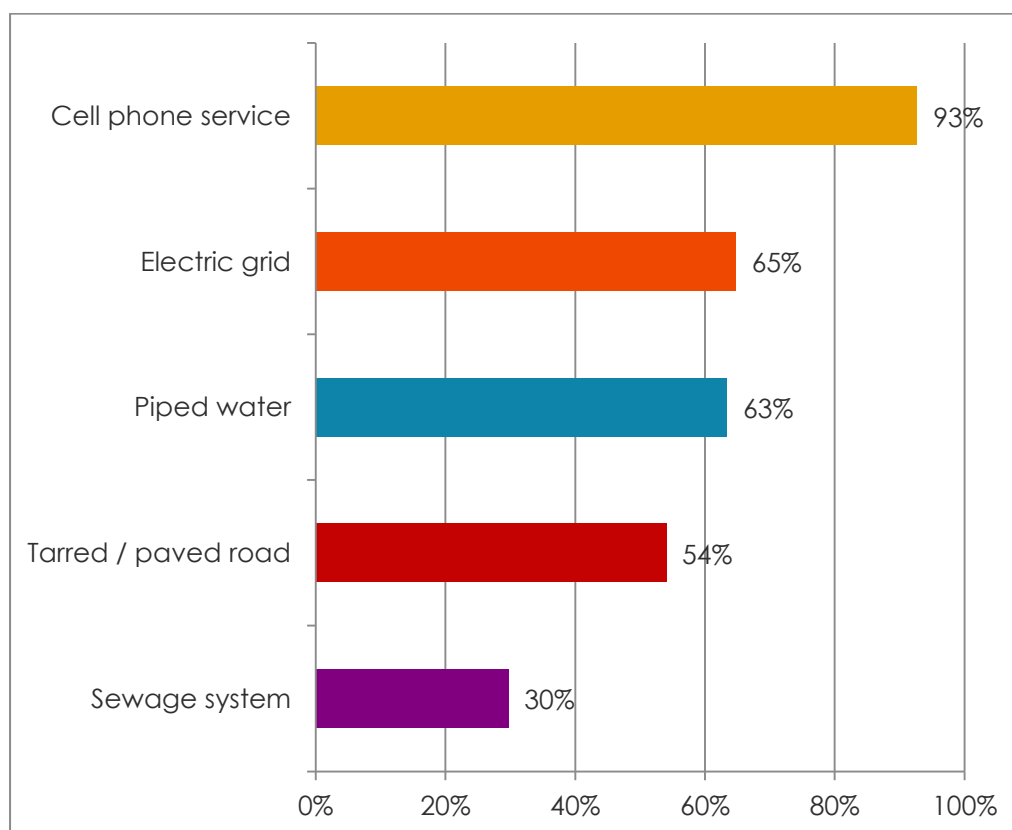


- Rural residents continue to be severely disadvantaged in most countries, with urban-rural gaps of more than 40 percentage points in the average availability of an electric grid, sewerage, and piped water infrastructure. In cell phone service, the average gap is only 10 percentage points. At the country level, urban-rural gaps vary widely, ranging up to 88 percentage points for access to the electric grid in Guinea, and 87 and 90 points for piped water and sewerage in Zimbabwe.

## Progress on infrastructure development

Despite the high priority assigned to infrastructure by both citizens and their governments, providing it remains a major challenge for many African countries. Based on Afrobarometer observations in 35 countries, on average only about two-thirds of citizens live in zones with an electric grid (65%) and/or piped water (63%), and only one in three live in zones with a sewage system (30%) (Figure 1). More than three times as many have access to cell phone service (93%), and about half (54%) live in zones with tarred or paved roads. (Note that “access” refers to the *availability* of services in a given enumeration area but does not imply the capacity of any individual or household to actually obtain the services).

**Figure 1: Availability of services and roads** | 35 countries | 2014/2015



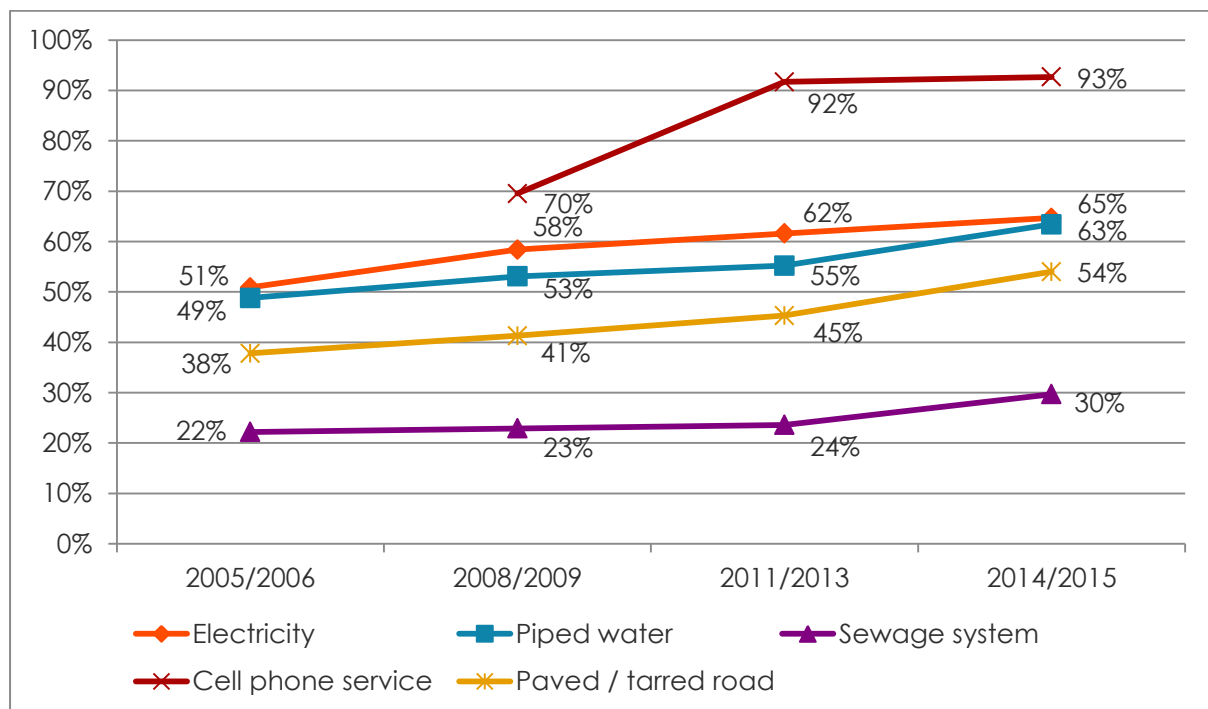
Interviewers were asked to record:

1. Whether the following were present in the enumeration area:<sup>1</sup>
  - An electricity grid that most houses could access.
  - A piped water system that most houses could access.
  - A sewage system that most houses could access.
  - Cell-phone service.
2. Whether the road at the start point in the EA was paved or tarred.

<sup>1</sup> Note that interviewers were asked to record the availability of the service in the community, not whether individual households were actually receiving the services. The proportion of households that currently receive these services will be lower in many cases.

These results reflect continued steady, though slow, progress in infrastructure development. On average, across 18 countries tracked by Afrobarometer since 2005/2006,<sup>2</sup> the availability of all five of these services has improved.<sup>3</sup> Access to electricity at the EA level has risen by 14 percentage points over the decade, and access to piped water systems has increased by the same amount (Figure 2). The presence of a paved or tarred road at the EA level expanded by 16 points. Cell phone services have expanded much more rapidly. In 2008/2009, the first time they were tracked by Afrobarometer, cell phone services were accessible to 70% of respondents, but by 2014/2015, coverage had increased to 93%, a gain of 23 percentage points. In contrast, access to sewerage has lagged, increasing just 8 points over the decade, from 22% in 2005/2006 to 30% in 2014/2015.

**Figure 2: Improved availability of basic infrastructure** | 18 countries | 2005-2015



### National differences in access to infrastructure

Access to basic services is highly variable across countries. For example, on average, 37% of all citizens live in zones without piped-water infrastructure, but the proportion ranges from 0% in Mauritius and Egypt to 83% in Liberia and 73% in Sierra Leone and Malawi.

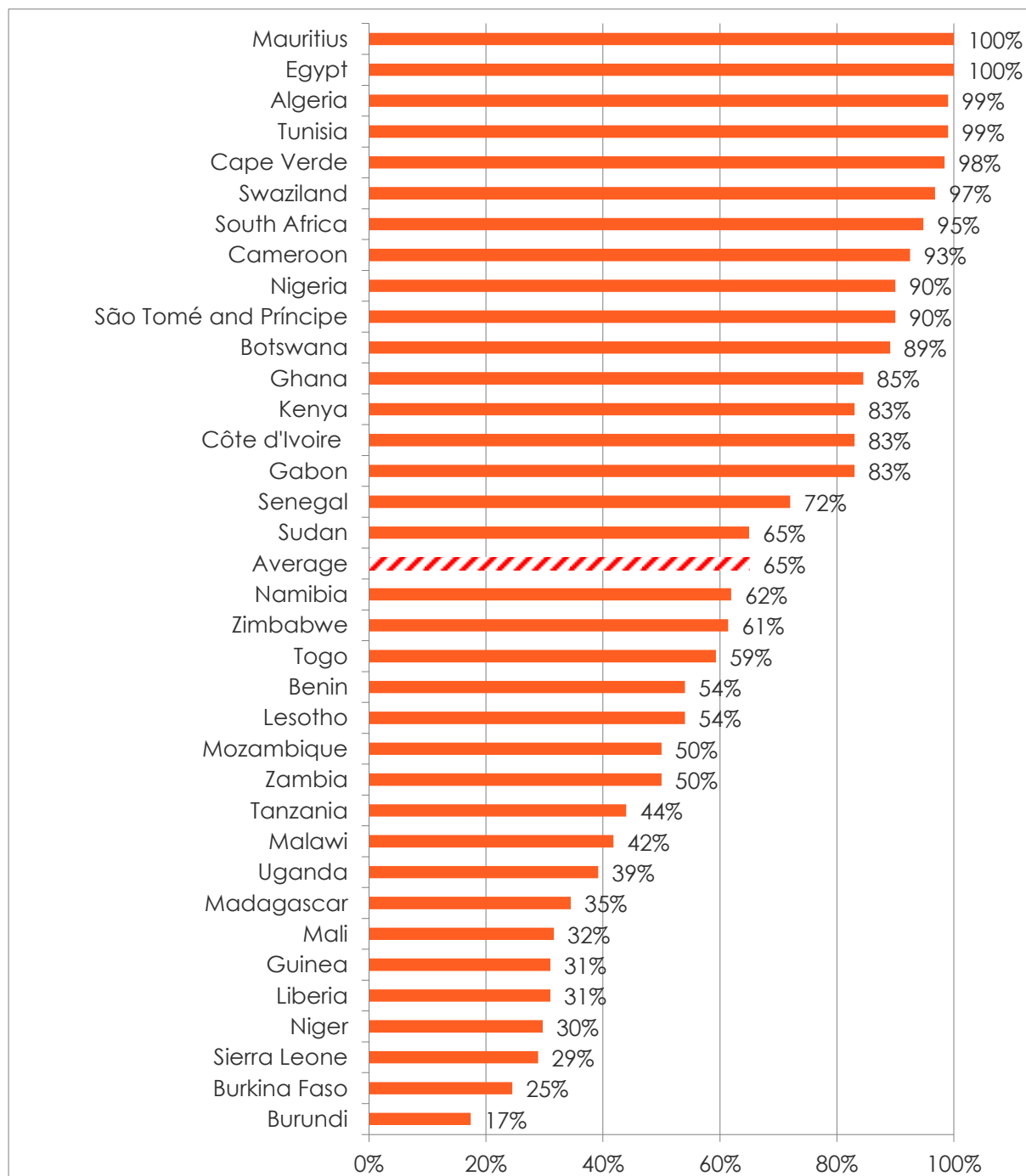
#### Electric grid

Mauritius, Egypt, Algeria, and Tunisia have all attained virtually universal coverage for their electric grids. In contrast, Burundi (17%), Burkina Faso (25%), Sierra Leone (29%), and Niger (30%) lag far behind, with access to less than one-third of citizens (Figure 3).

<sup>2</sup> The 18 countries are Benin, Botswana, Cape Verde, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe.

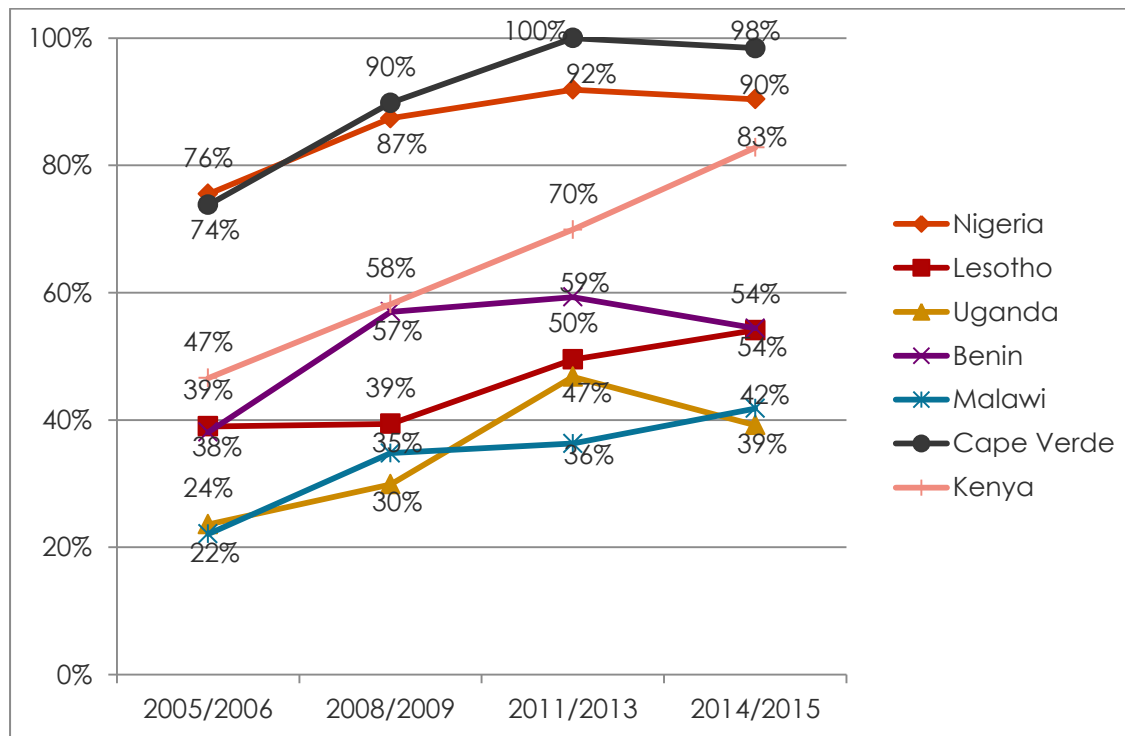
<sup>3</sup> Note that the figure of 70% for cell phone service in 2008/2009 is based on 16 countries rather than 18, as no data are available for Lesotho and Madagascar during this time period.

Figure 3: Availability of electric grid in enumeration area | 35 countries | 2014/2015



Access in the 18 countries tracked since 2005/2006 has increased from 51% to 65%. Benin, Cape Verde, Kenya, Lesotho, Malawi, Nigeria, and Uganda have made the largest and most consistent gains in availability (Figure 4), led by Kenya with a gain of 36 percentage points. Madagascar, Senegal, and Zambia actually recorded slight losses over the past decade.

**Figure 4: Changes in access to electric grid: Countries with highest gains**  
 | 18 countries | 2005-2015



**Piped water**

Mauritius and Egypt have attained universal coverage in availability of piped water as well, and Algeria is nearly there at 97% coverage. But 14 countries cannot provide access to piped water to even 50% of their citizens (Figure 5). Liberia lags farthest behind, with piped water supplies available in only 17% of EAs that were visited.

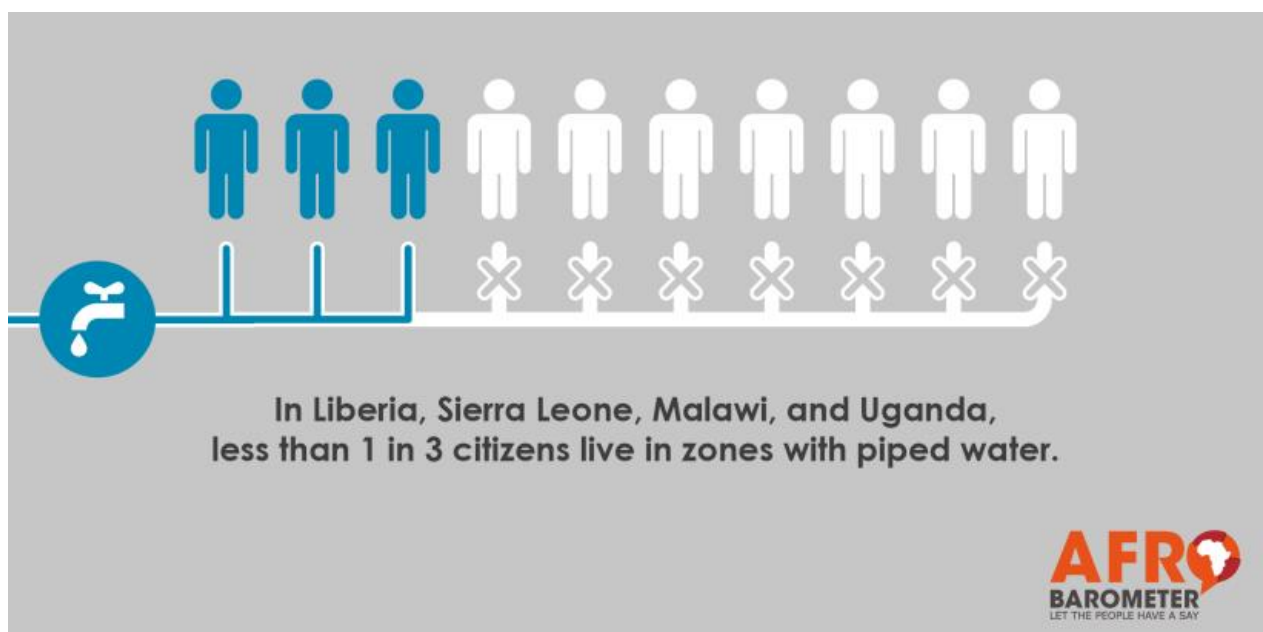
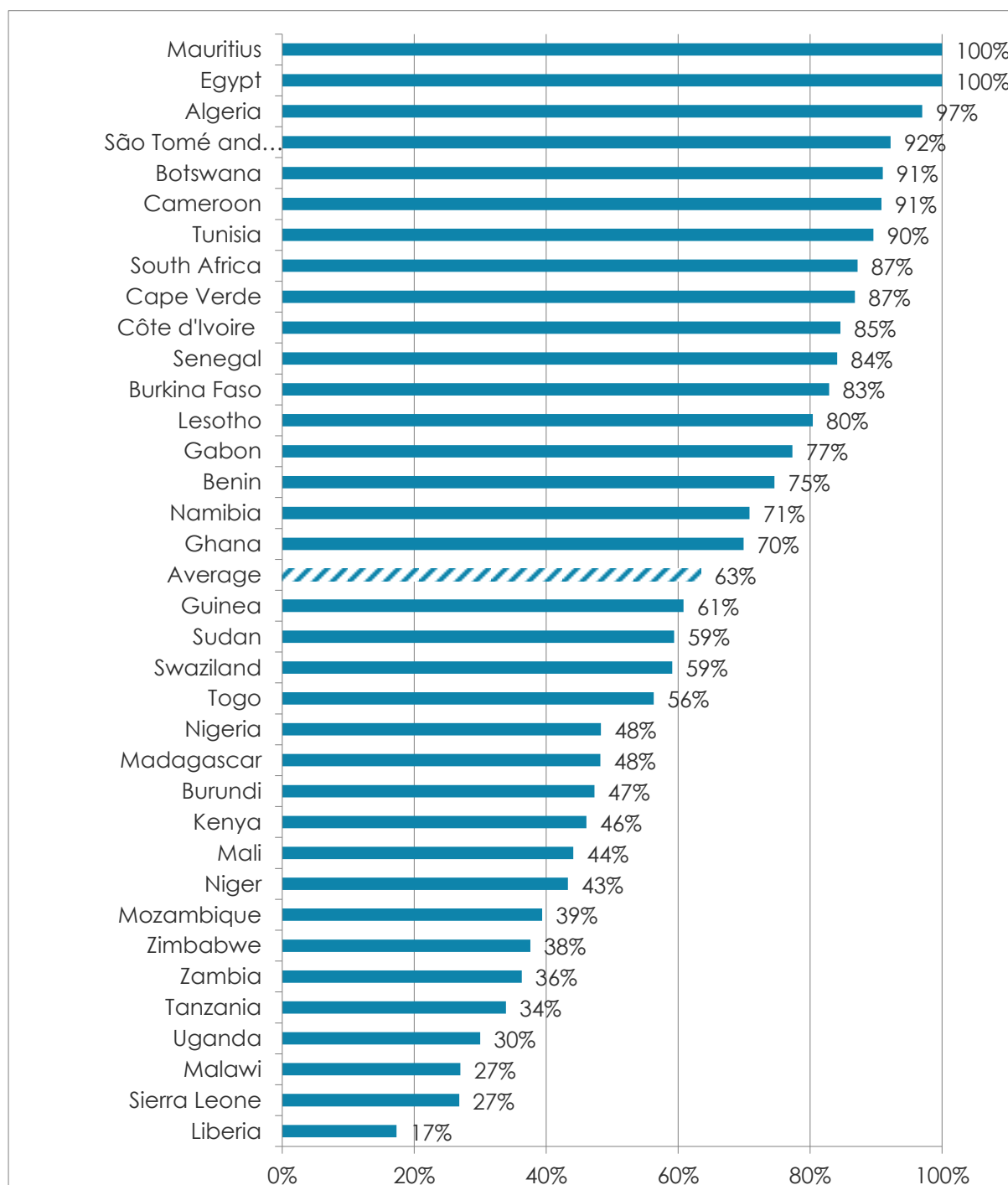


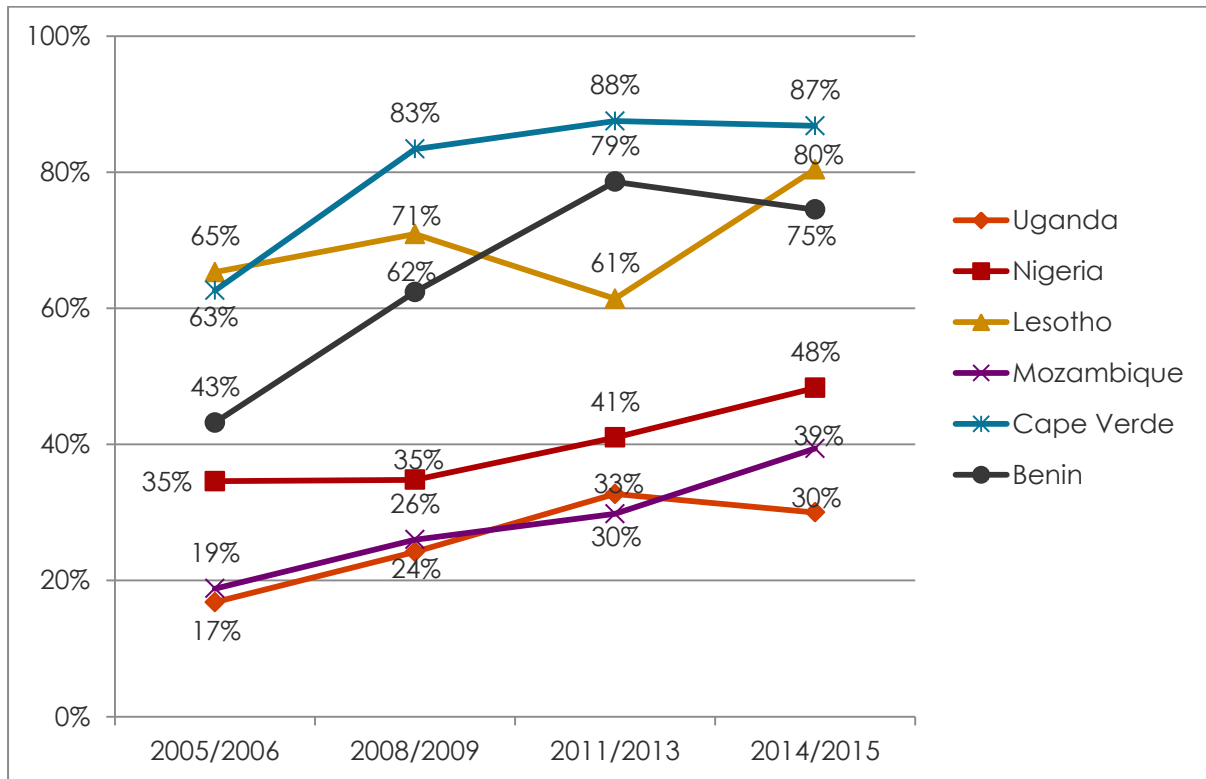
Figure 5: Availability of piped water in enumeration area | 35 countries | 2014/2015



Across the 18 countries tracked since 2005/2005, Benin, Cape Verde, Lesotho, Nigeria, and Uganda are again among those recording the greatest increases, along with Mozambique. All gained at least 13 percentage points in access to piped water over the past decade, with Benin recording an impressive 31-percentage-point increase (Figure 6). In contrast, Malawi, Mali, and Zimbabwe saw slight declines in coverage during the same period.



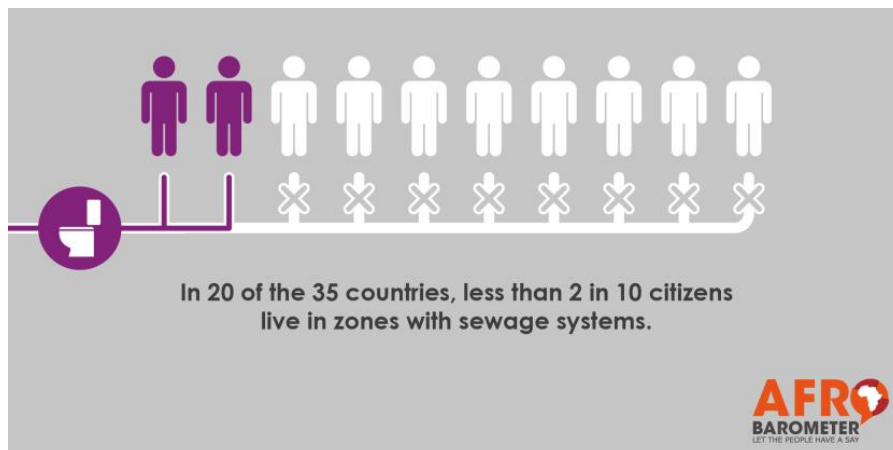
**Figure 6: Changes in access to piped water: Countries with highest gains**  
 | 18 countries | 2005-2015



### Sewerage

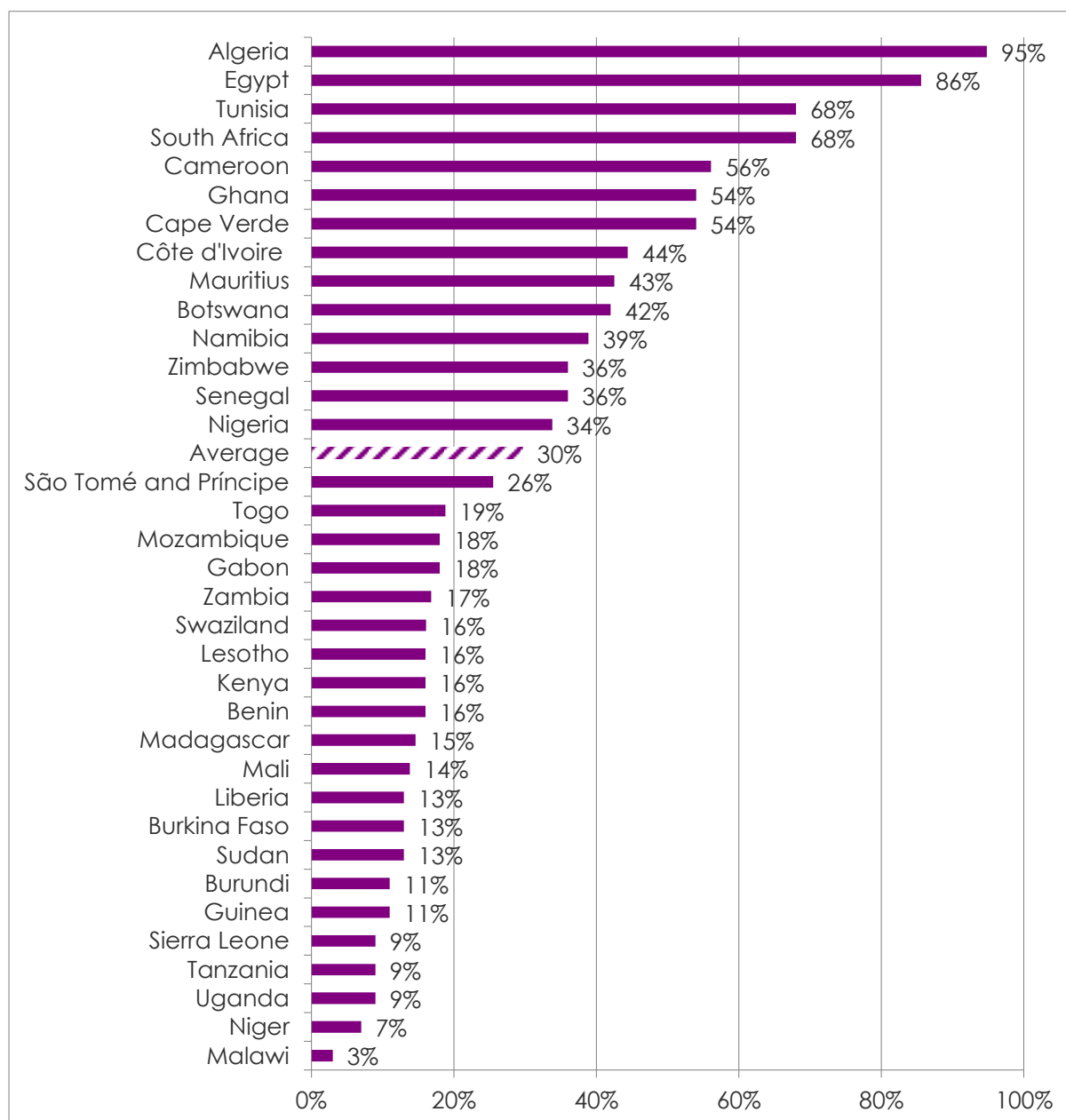
Availability of sewerage is poor across the African continent. No country has achieved universal availability. The average level of access across 35 countries is just 30%, and 20 countries remain below 20%. Only seven countries record coverage above 50%: Algeria (95%), Egypt (86%), Tunisia (68%), South Africa (68%), Cameroon (56%), Ghana (54%), and Cape Verde (54%). Malawi (3%) is the worst performer, followed by Niger (7%), Uganda (9%), Tanzania (9%), and Sierra Leone (9%) (Figure 7).

Among the 18 countries tracked since 2005/2006, several recorded sizeable gains, led by Cape Verde (28-percentage-point increase), Botswana (20 points), Ghana (17 points), and Nigeria (15 points).



But nine of the 18 countries either gained essentially no ground over the past decade, with changes of 3 points or less (Kenya, Mali, Tanzania, and Zimbabwe), or even lost ground (Benin, Madagascar, Malawi, Namibia, and Zambia).

Figure 7: Availability of sewerage in enumeration area | 35 countries | 2014/2015

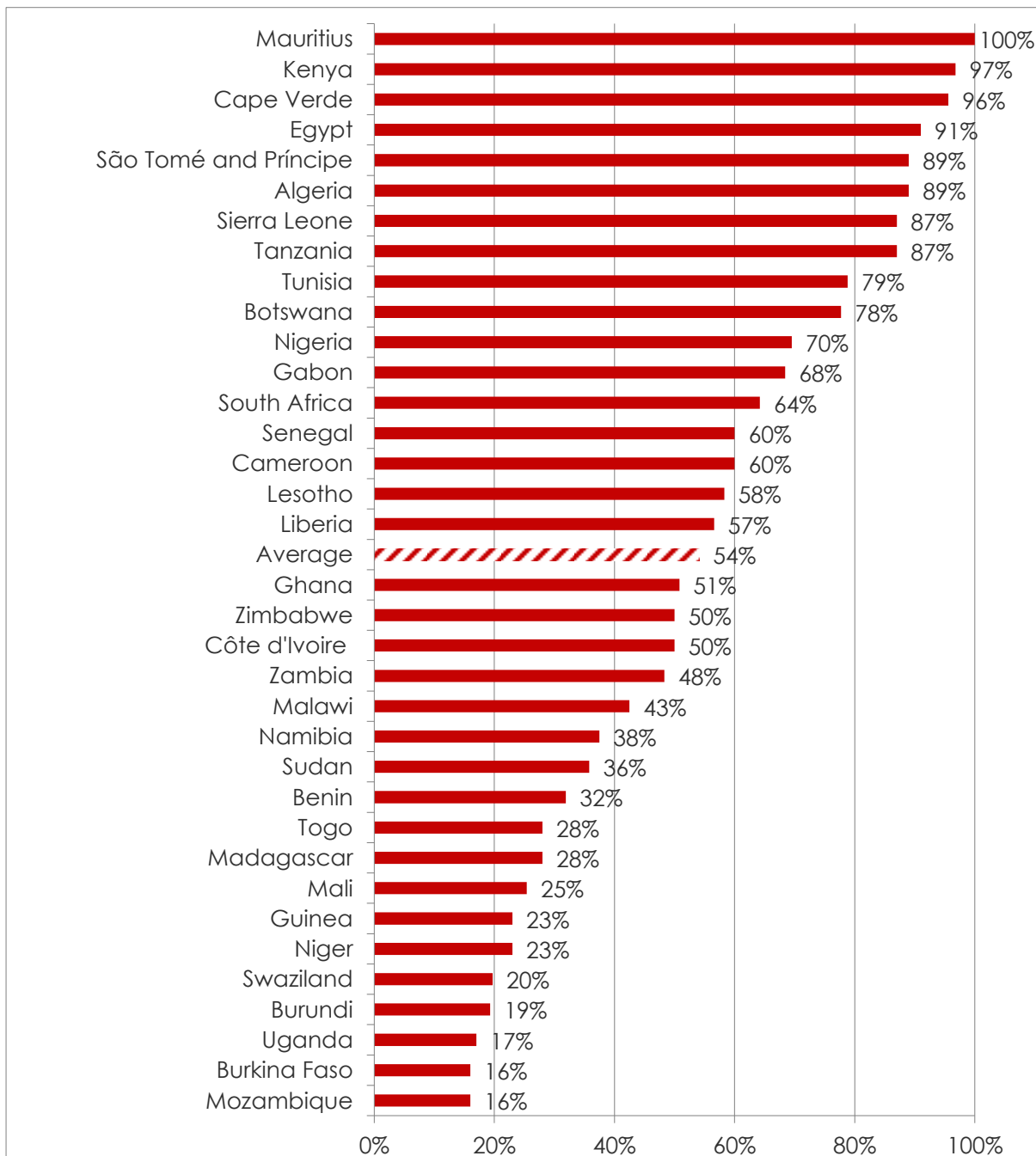


### Tarred/paved roads

Mauritius is the only country where field teams reported tarred or paved roads leading to all of the sampled EAs, followed by Kenya (97%),<sup>4</sup> Cape Verde (96%), and Egypt (91%). But the average for Africa is just 54%, and five countries recorded paved roads in less than one in five EAs visited: Mozambique (16%), Burkina Faso (16%), Uganda (17%), Burundi (19%), and Swaziland (20%) (Figure 8).

<sup>4</sup> This high figure for Kenya is surprising, especially given much lower figures (30% or less) recorded in previous surveys, but it may at least in part reflect aggressive infrastructure development, and especially road improvement and grading, done by many of the country's new county governments in the past few years.

Figure 8: Tarred/paved roads in enumeration area | 35 countries | 2014/2015

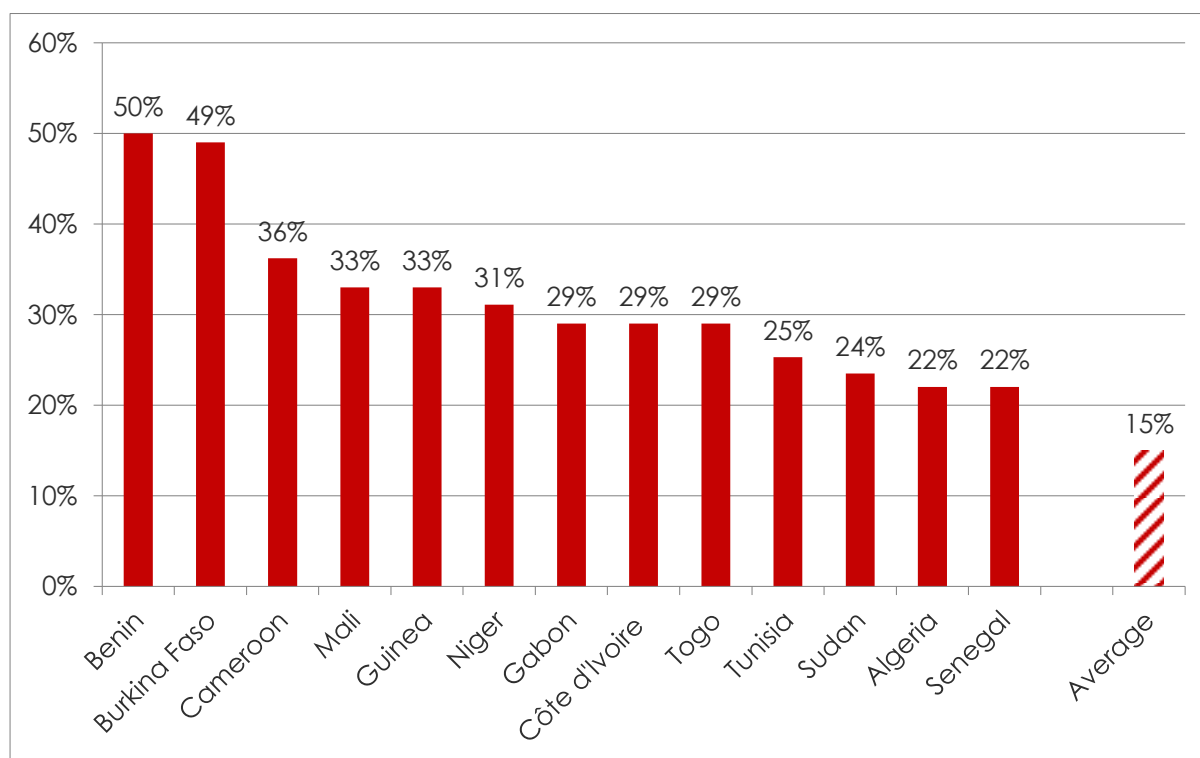


Among the 18 countries tracked since 2005/2006, Tanzania stands out with 15- to 20-percentage-point gains in every survey cycle; between 2002/2003 and 2014/2015, the proportion of EAs with improved roads in Tanzania has grown from 23% to 87%, a 64-point increase. At the other extreme, Uganda, Senegal, Mali, and Madagascar made little or no headway, and Ghana and Mozambique saw declines over the period.

For the first time, Afrobarometer also recorded in Round 6 whether fieldworkers encountered any impassable roads on their way to an enumeration area, which occurred for 15% of all EAs. Benin had the most reported problems, with impassable roads on the way to 50% of EAs,

followed closely by Burkina Faso (49%) (Figure 9). In contrast, five countries (Botswana, Cape Verde, Mauritius, Namibia, and São Tomé and Príncipe) reported no problems with impassable roads, and problems were reported in only 2%-3% of EAs in seven other countries (Egypt, Ghana, Mozambique, South Africa, Tanzania, Zambia, and Zimbabwe).

**Figure 9: Countries with impassable roads for 20% or more of enumeration areas**  
 | 35 countries | 2014/2015



Interviewers were asked to record whether the road to the enumeration area was impassable at any point, for example due to absence of a bridge or a collapsed bridge, broken-down vehicles, fallen tree, or water-logged section.

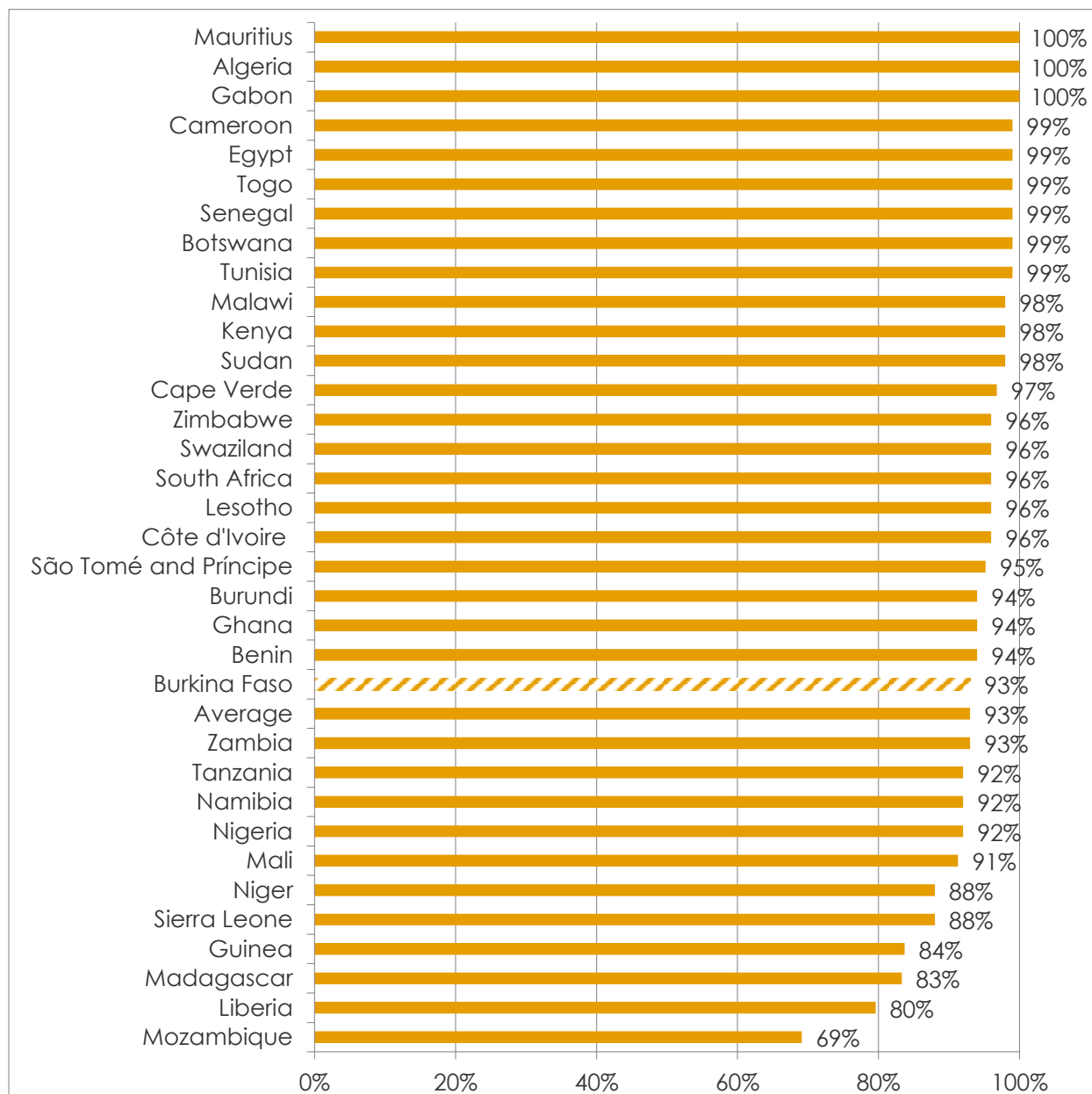
### Cell phone service

Cell phone service stands out as the most highly accessible service on the continent, with an average of 93% availability across EAs in 35 countries. Mauritius, Algeria, and Gabon have achieved universal coverage, and all but seven countries score over 90%. In contrast, Mozambique and Liberia rank at the bottom with 69% and 80% access, respectively (Figure 10).<sup>5</sup>

An examination of availability of cell phone service across 18 countries since Afrobarometer Round 4 in 2008/2009 shows tremendous improvement in many countries, led by Senegal (increasing from 30% to 99%) and Mali (from 47% to 91%). In addition, Benin and Zimbabwe both saw increases of 27 percentage points over this period. Seven other countries had already achieved coverage above 90% by 2008/2009.

<sup>5</sup> Note that figures reported for cell phone service coverage in Uganda in Round 6 (2015) are even lower, but the accuracy of this finding is still being evaluated. Findings for Uganda are therefore excluded from charts on cell service. Another anomalous finding, Mozambique's drop in cell phone service coverage from 89% in 2011/2013 to 69% in 2014/2015, is also being further analysed.

Figure 10: Availability of cell phone service in enumeration area | 34 countries | 2014/2015



### Regional disparities

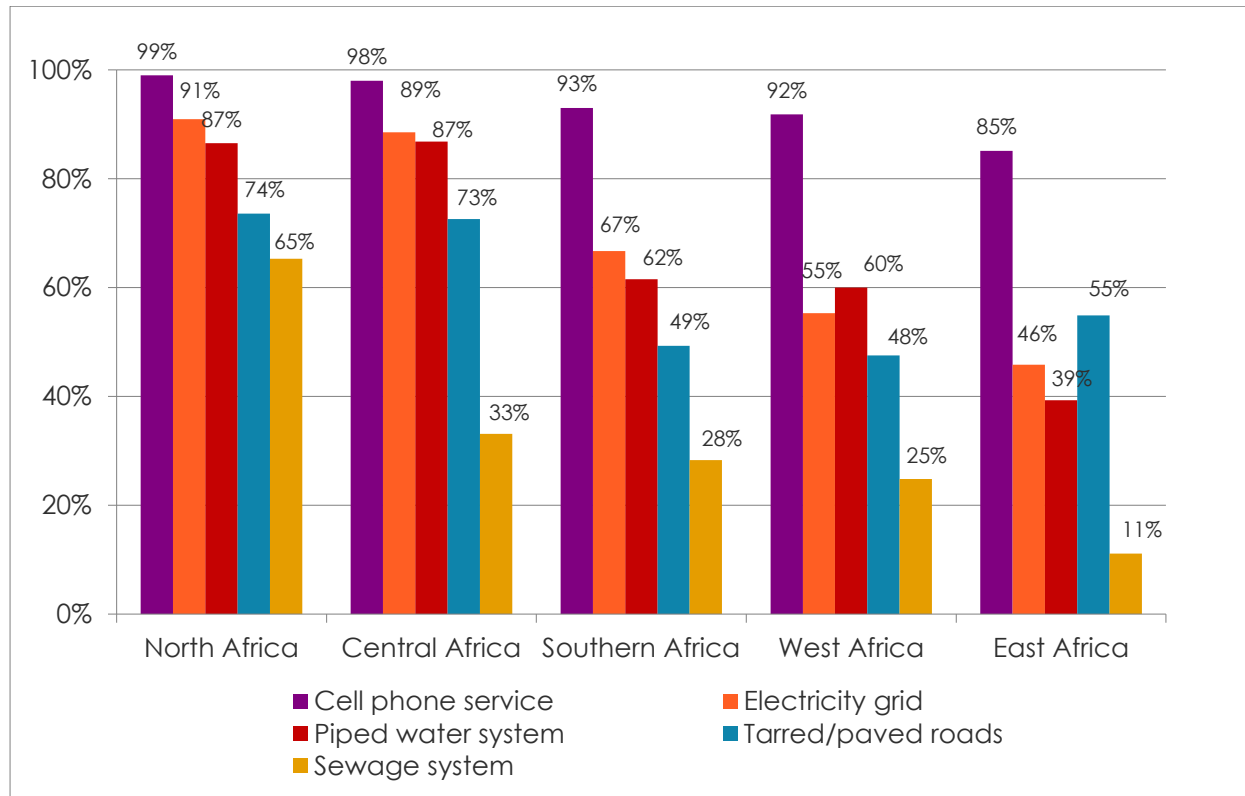
Beyond the country-level differences reported above, we also find regional-level differences in infrastructure and service provision.<sup>6</sup> North Africa stands out as a comparatively well-provided-for region, enjoying the highest level of infrastructure access across all sectors. As

<sup>6</sup> Regional groupings are: East Africa (Burundi, Kenya, Tanzania, Uganda), West Africa (Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo), Southern Africa (Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe), North Africa (Algeria, Egypt, Sudan, Tunisia), and Central Africa (Cameroon, Gabon, and São Tomé and Príncipe).

represented by the three countries currently covered by Afrobarometer surveys, Central Africa enjoys comparable levels of delivery for all services except sewerage (33%), where it falls far behind North Africa (65%) (Figure 11).

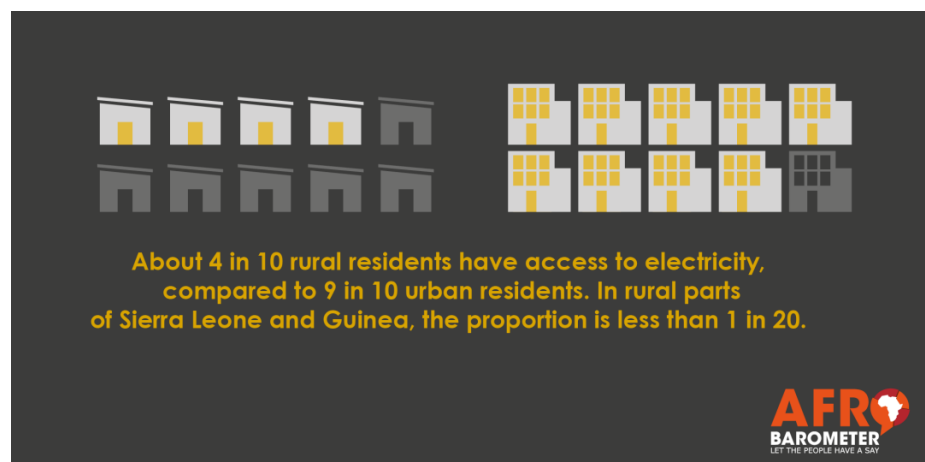
In contrast, the East Africa region lags behind all others in all services except tarred/paved roads, where it surpasses West and Southern Africa.

**Figure 11: Regional disparities in provision of infrastructure** | 35 countries | 2014/2015

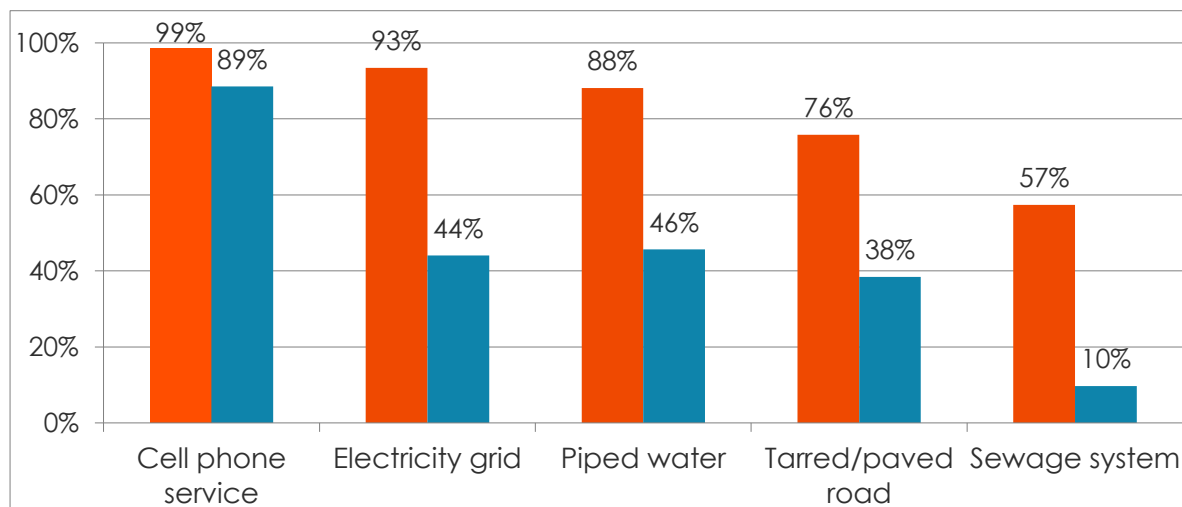


### Urban-rural disparities

Africa's infrastructure development remains heavily skewed, with rural residents far less likely than their urban counterparts to have access to basic services. Cell phone service is the least skewed: A gap of only 10 percentage points separates average availability in urban and rural areas. Other services show far larger disparities: 37 percentage points for tarred or paved roads, 42 points for piped water, 48 points for sewerage, and 49 points for electricity (Figure 12).



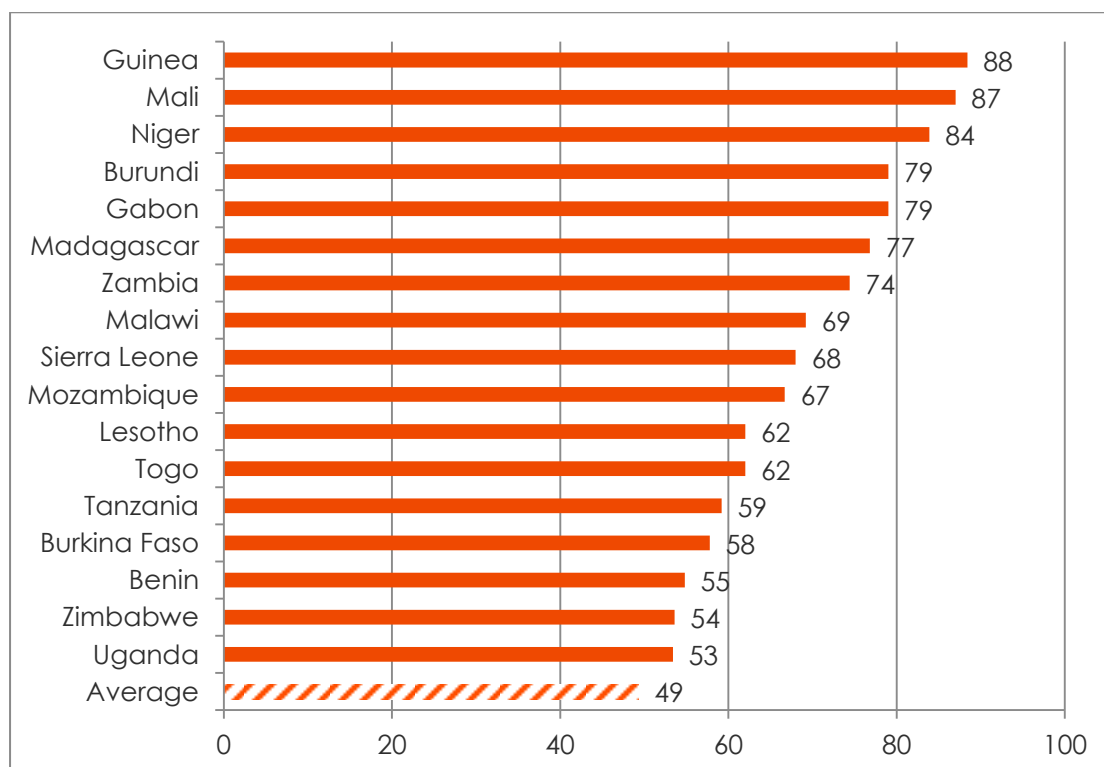
**Figure 12: Urban-rural disparities in service availability | 35 countries | 2014/2015**



Note: 1-point differences between reported gaps and numbers shown in the figures are due to rounding.

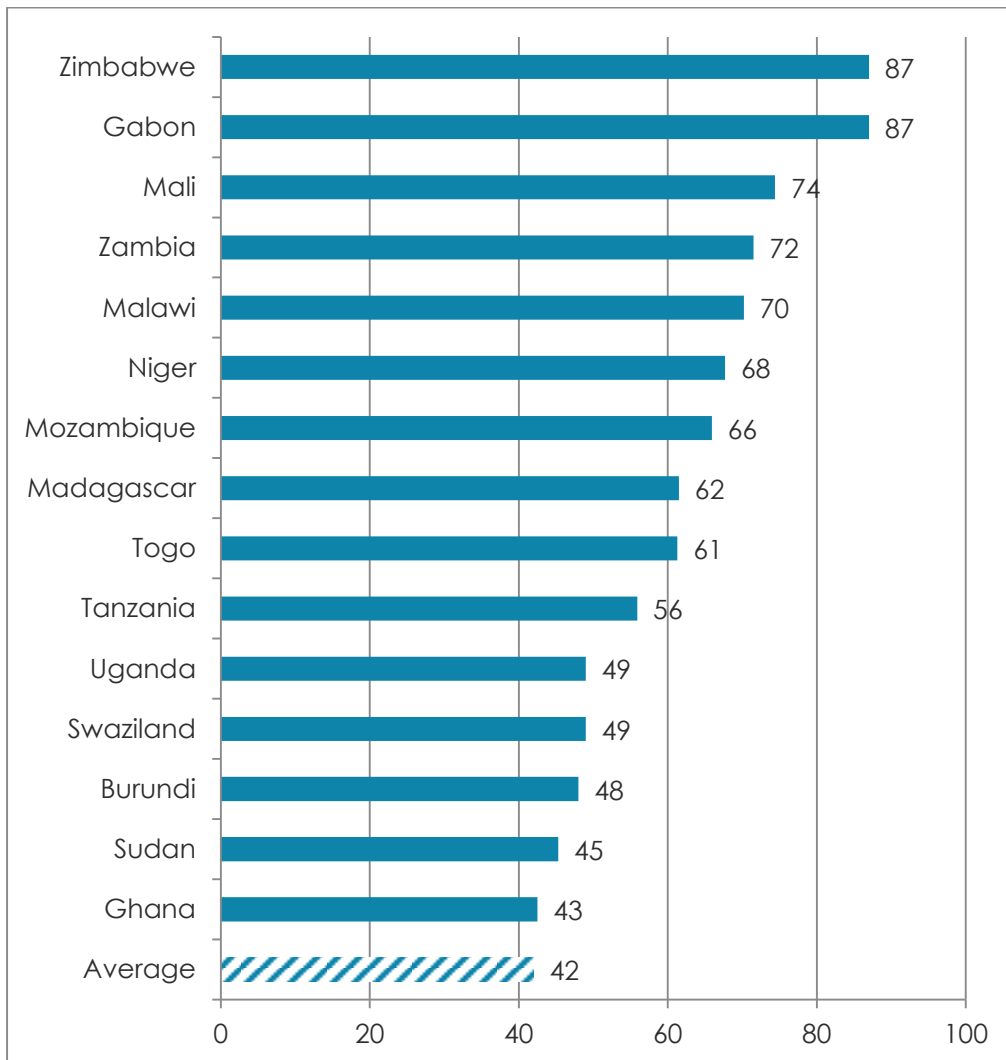
Urban-rural disparities vary widely at the country level. For example, availability of electricity shows gaps of 88 percentage points in Guinea, 87 points in Mali, and 84 points in Niger (Figure 13), while at the other extreme Tunisia, Egypt, and Mauritius have 100% coverage in rural areas and Swaziland, Algeria, Cape Verde, and South Africa show urban-rural gaps of less than 10 points. (See details of urban-rural disparities by country in the appendix.)

**Figure 13: Urban-rural gap in availability of electric grid in the enumeration area**  
 | countries above average (percentage-point gap in average access between urban and rural EAs) | 2014/2015



With regard to piped water, the average urban-rural gap of 42 percentage points reflects the extremes of large disparities in Zimbabwe (87 points), Gabon (87), and Mali (74 points) (Figure 14) and no gap in Egypt and Mauritius. In São Tomé and Príncipe, the gap favours rural residents (97% have access) over their urban counterparts (90%).

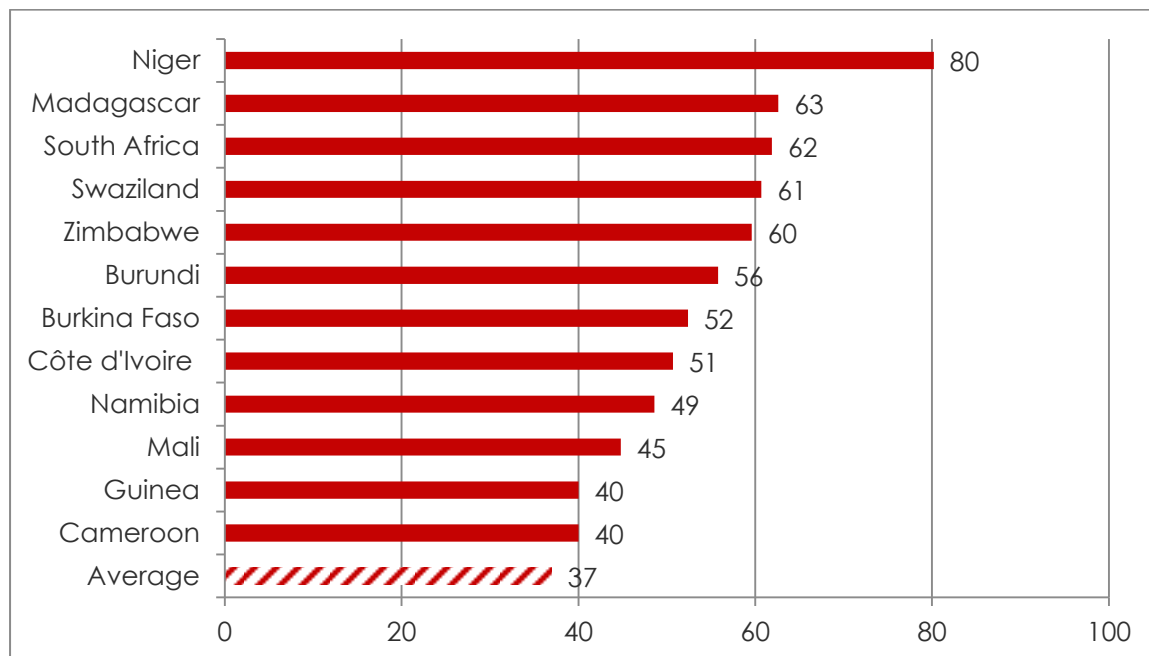
**Figure 14: Urban-rural gap in availability of piped water in the enumeration area**  
 | countries above average (percentage-point gap in average access between urban and rural EAs) | 2014/2015



The gap between urban and rural areas in provision of tarred/paved roads (37 percentage points on average) is led by Niger (80 percentage points), Madagascar (63 points), and South Africa (62 points) (Figure 15). São Tomé and Príncipe and Mauritius have closed the gap, while Kenya (5 points), Liberia (5 points), Malawi (6 points), and Uganda (10 points) show the smallest gaps.

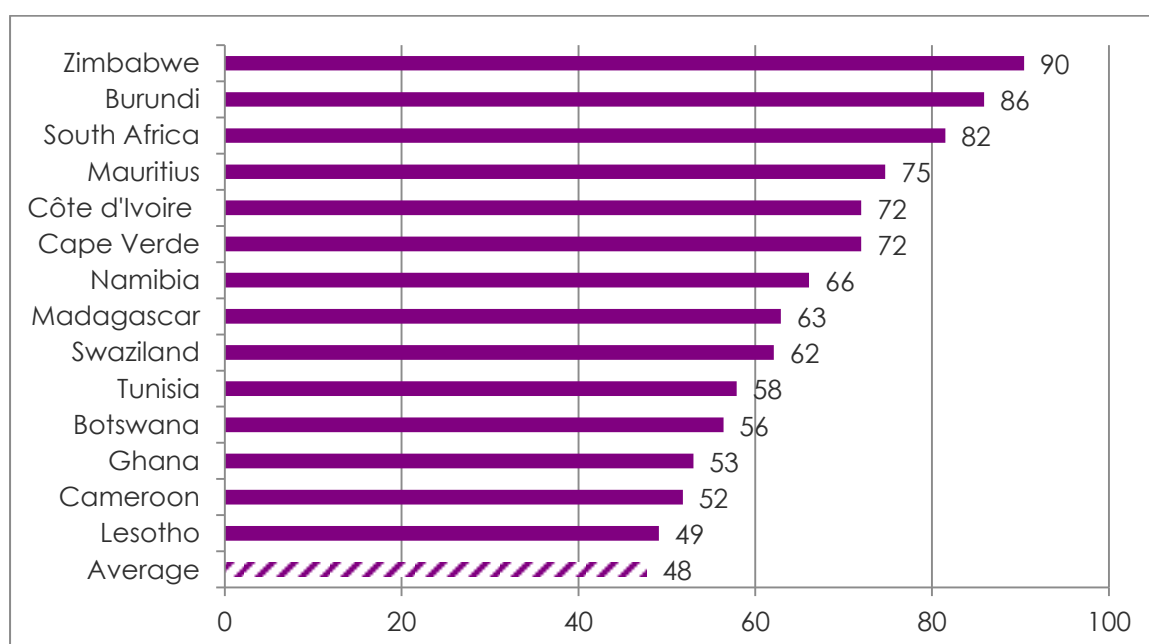


**Figure 15: Urban–rural gap in provision of tarred/paved roads in the enumeration area** | countries above average (percentage-point gap in average access between urban and rural EAs) | 2014/2015



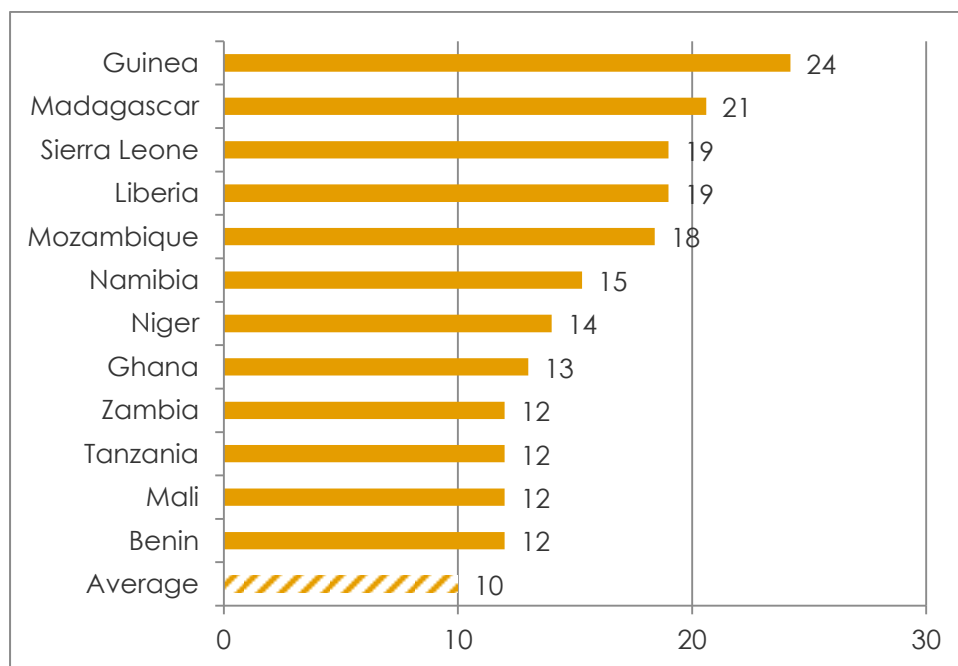
Sewerage shows the single greatest national urban-rural gap – 90 percentage points, in Zimbabwe, followed by 86 points in Burundi, 82 points in South Africa, and 75 points in Mauritius. São Tomé and Príncipe (2 points) and Togo (9 points) have the smallest urban-rural gaps in sewerage provision (Figure 16).

**Figure 16: Urban–rural gap in provision of sewage system in the enumeration area** | countries above average (percentage-point gap in average access between urban and rural EAs) | 2014/2015



The urban-rural gap is smallest (10 percentage points on average across all countries) in cell phone service as the private sector continues its successful push toward universal coverage. Guinea has the largest gap (24 percentage points), followed by Madagascar (21 points) and Sierra Leone and Liberia (19 points each) (Figure 17). In contrast, Mauritius and Algeria have closed the gap completely, while 20 other countries have gaps of between 1 and 9 percentage points.

**Figure 17: Urban-rural gap in availability of cell phone service in the enumeration area** | countries above average (percentage-point gap in average access between urban and rural EAs) | 2014/2015



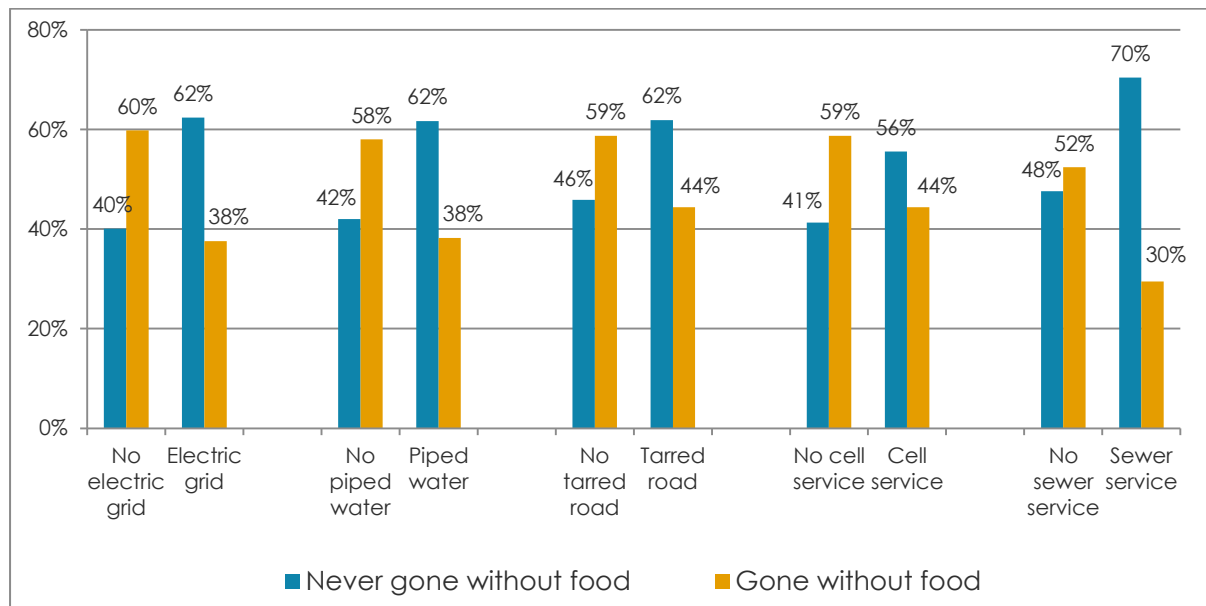
### Infrastructure and poverty

Previous analysis of Afrobarometer data has confirmed the strong link between poverty and whether or not individuals have access to key services in their communities (Mattes, Dulani, & Logan, 2013; Logan, 2014). Afrobarometer data describe “lived poverty” based on how frequently people go without basic necessities (food, clean water for home use, medicines or medical treatment, fuel for cooking, and a cash income) during the course of a year. The frequency with which a household goes without food, in particular, is a good proxy for overall household experience of poverty.

Where infrastructure services are not present, individuals are significantly more likely to go hungry. For example, where an electric grid is available, 38% experienced hunger in the past year, while 62% did not. In contrast, where no grid is present, experience of hunger is much higher, with 60% saying they went without food at least once in the past year. Similar patterns are evident with respect to all of the other services: Levels of hunger are much higher in areas where the service is not available.<sup>7</sup>

<sup>7</sup> Pearson’s chi-square tests confirm that the differences are significant for all five types of infrastructure: for electric grid,  $X^2=1908.90$ ,  $p=0.000$ ; for piped water,  $X^2=1520.28$ ,  $p=0.000$ ; for tarred/paved roads,  $X^2=1065.36$ ,  $p=0.000$ ; for cell phone service,  $X^2=251.07$ ,  $p=0.000$ ; and for sewerage,  $X^2=1838.31$ ,  $p=0.000$ .

**Figure 18: Access to infrastructure and experience of poverty (hunger) | 35 countries | 2014/2015**



**Respondents were asked:** Over the past year, how often, if ever, have you or anyone in your family gone without enough food to eat? (Responses are divided into two categories: Those who have "never gone without food" and those who have gone without "once or twice," "several times," "many times," or "always" (all combined into "gone without food")

While these results do not prove that better infrastructure causes reductions in poverty, they do suggest that a lack of key service infrastructure is related to the experience of poverty. An understanding of this association may explain why poor respondents and poor countries are especially likely to cite infrastructure as the most important problem facing their country, and as a priority for additional government investment (Bentley, Olapade, Wambua, & Charron, 2015).

## Conclusion

These findings point to the need for African governments to intensify efforts to develop basic infrastructure across the continent. Of particular concern are infrastructure deficits in rural areas, where a majority of the population lives and works, but where on average less than half of all people have access to electricity, piped water, sewerage, and tarred/paved roads. Building on, and accelerating, the progress made over the past decade will move Africa toward the inclusive growth that its citizens demand.

---

**Do your own analysis of Afrobarometer data – on any question, for any country and survey round. It's easy and free at [www.afrobarometer.org/online-data-analysis](http://www.afrobarometer.org/online-data-analysis).**

---

## References

- African Development Bank. (2013). AfDB strategy for 2013-2022: At the center of Africa's transformation. Available at <http://www.afdb.org/en/documents/document/afdb-strategy-for-2013-2022-at-the-center-of-africas-transformation-31420/>.
- Bentley, T., Olapade, M., Wambua, P., & Charron, N. (2015). Where to start? Aligning sustainable development goals with citizen priorities. Afrobarometer Dispatch No. 67. Available at [http://afrobarometer.org/sites/default/files/publications/Dispatches/ab\\_r6\\_dispatchno67\\_african\\_priorities\\_en.pdf](http://afrobarometer.org/sites/default/files/publications/Dispatches/ab_r6_dispatchno67_african_priorities_en.pdf)
- Logan, C. (2014). Developing Africa's infrastructure: The rough road to better services. Afrobarometer Dispatch No. 3. Available at [http://afrobarometer.org/sites/default/files/publications/Dispatch/ab\\_r6\\_dispatchno3.pdf](http://afrobarometer.org/sites/default/files/publications/Dispatch/ab_r6_dispatchno3.pdf)
- Mattes, R., Dulani, B., & Logan, C. (2013). After a decade of growth in Africa, little change in poverty at the grassroots. Afrobarometer Policy Paper No. 1. Available at <http://www.afrobarometer.org/publications/policy-papers?start=25>.
- New Partnership for Africa's Development. (2010). Africa launches an ambitious programme for infrastructure development. Available at <http://www.nepad.org/regionalintegrationandinfrastructure/news/1628/africa-launches-ambitious-programme-infrastructure-de>.
- Wantchekon, L. (2014). Breaking the cycle of rural poverty: One infrastructure investment at a time. Posted on World Bank Blog "Africa Can End Poverty." 14 October 2014. Available at <http://blogs.worldbank.org/africacan/breaking-cycle-rural-poverty-one-infrastructure-investment-time>.
- World Bank. (2014). Logistics performance index, 2014 (database). World Bank. <http://lpi.worldbank.org/>.

## Appendix

**Table A.1: Afrobarometer Round 6 fieldwork dates and previous survey rounds**

Country	Months when Round 6 fieldwork was conducted	Previous survey rounds
Algeria	May-June 2015	2013
Benin	May-June 2014	2005, 2008, 2011
Botswana	June-July 2014	1999, 2003, 2005, 2008, 2012
Burkina Faso	April-May 2015	2008, 2012
Burundi	September-October 2014	2012
Cameroon	January-February 2015	2013
Cape Verde	November-December 2014	2002, 2005, 2008, 2011
Côte d'Ivoire	August-September 2014	2013
Egypt	June-July 2015	2013
Gabon*	September 2015	N/A
Ghana	May-June 2014	1999, 2002, 2005, 2008, 2012
Guinea	March-April 2015	2013
Kenya	November-December 2014	2003, 2005, 2008, 2011
Lesotho	May 2014	2000, 2003, 2005, 2008, 2012
Liberia	May 2015	2008, 2012
Madagascar	December 2015-January 2015	2005, 2008, 2013
Malawi	March-April 2014	1999, 2003, 2005, 2008, 2012
Mali	December 2014	2001, 2002, 2005, 2008, 2013
Mauritius	June-July 2014	2012
Morocco*	November 2015	2013
Mozambique*	June-August 2015	2002, 2005, 2008, 2012
Namibia	August-September 2014	1999, 2003, 2006, 2008, 2012
Niger	April 2015	2013
Nigeria	December 2014-January 2015	2000, 2003, 2005, 2008, 2013
Sao Tome & Principe*	July-August 2015	N/A
Senegal	November-December 2014	2002, 2005, 2008, 2013
Sierra Leone	May-June 2015	2012
South Africa	August-September 2015	2000, 2002, 2006, 2008, 2011
Sudan	June 2015	2013

Country	Months when Round 6 fieldwork was conducted	Previous survey rounds
Swaziland	April 2015	2013
Tanzania	August-November 2014	2001, 2003, 2005, 2008, 2012
Togo	October 2014	2012
Tunisia	April-May 2015	2013
Uganda	May 2015	2000, 2002, 2005, 2008, 2012
Zambia	October 2014	1999, 2003, 2005, 2009, 2013
Zimbabwe	November 2014	1999, 2004, 2005, 2009, 2012

\* Round 6 data from Morocco were not available at the time of writing but will be available by February 2016.

**Table A.2: Urban-rural disparities by country (% of enumeration areas with the service)**

	Electric grid		Piped water system		Sewage system		Tarred/paved roads		Cell phone service	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Algeria	100	98	99	93	99	87	100	68	100	100
Benin	82	28	81	69	28	4	48	16	100	88
Botswana	100	71	100	77	63	7	92	54	100	97
Burkina Faso	69	12	100	78	49	3	57	5	100	91
Burundi	87	7	89	41	86	-	68	12	100	93
Cameroon	100	84	99	82	81	29	79	39	100	98
Cape Verde	100	96	96	72	80	9	100	88	100	91
Cote d'Ivoire	100	63	98	69	78	6	74	23	100	91
Egypt	100	100	100	100	100	74	99	85	100	98
Gabon	99	20	95	9	22	4	75	42	100	98
Ghana	98	68	89	47	78	25	61	39	100	87
Guinea	91	3	89	47	32	1	50	10	100	76
Kenya	99	74	70	33	41	2	100	95	100	97
Lesotho	98	36	100	72	50	1	71	53	100	95
Liberia	42	20	29	7	23	4	60	54	89	71
Madagascar	97	20	98	36	65	3	79	16	100	79
Malawi	98	29	84	14	16	-	48	41	100	98
Mali	97	10	100	26	43	4	59	14	100	88
Mauritius	100	100	100	100	87	12	100	100	100	100
Mozambique	93	26	82	16	45	4	33	6	81	63
Namibia	84	41	85	58	73	7	62	14	100	85
Niger	100	16	100	32	43	-	90	10	100	86
Nigeria	99	84	60	39	51	20	76	65	92	91
São Tomé/Príncipe	97	77	90	97	26	24	89	90	96	93
Senegal	99	51	99	73	47	27	75	48	100	98
Sierra Leone	72	4	43	18	25	-	95	82	100	81
South Africa	98	89	98	67	95	14	85	23	98	94
Sudan	92	49	88	43	30	2	56	24	100	97
Swaziland	97	97	97	48	65	2	67	6	100	95
Tanzania	83	24	71	15	26	-	95	83	100	88
Togo	95	33	92	30	24	15	39	20	100	98
Tunisia	99	100	98	72	87	30	86	65	100	96
Uganda	83	29	70	21	33	3	25	15	NA	NA
Zambia	95	20	80	8	40	1	68	35	100	88
Zimbabwe	95	42	92	5	92	2	88	28	100	94
Average	93	44	88	46	57	10	76	38	99	89

## Other Round 6 global releases

- **Where to start? Aligning sustainable development goals with citizen priorities.**  
Bentley, T., Olapade, M., Wambua, P., & Charron, N. (2015). Afrobarometer Dispatch No. 67. Available at [http://afrobarometer.org/sites/default/files/publications/Dispatches/ab\\_r6\\_dispatchno67\\_african\\_priorities\\_en.pdf](http://afrobarometer.org/sites/default/files/publications/Dispatches/ab_r6_dispatchno67_african_priorities_en.pdf)

**Winnie V. Mitullah** is director of the Institute for Development Studies (IDS) at the University of Nairobi. Email: [mitulla@uonbi.ac.ke](mailto:mitulla@uonbi.ac.ke).

**Romarc Samson** is assistant program manager at the Institute for Empirical Research in Political Economy (IERPE) in Benin. Email: [rsamson@afrobarometer.org](mailto:rsamson@afrobarometer.org).

**Pauline M. Wambua** is a MasterCard scholar pursuing a master's degree in public policy in the Department of Political Science at Michigan State University. Email: [wambuapa@msu.edu](mailto:wambuapa@msu.edu).

**Samuel Balongo** is Afrobarometer data manager for East Africa at IDS, University of Nairobi. Email: [sbalongo@gmail.com](mailto:sbalongo@gmail.com).

Afrobarometer is produced collaboratively by social scientists from more than 30 African countries. Coordination is provided by the Center for Democratic Development (CDD) in Ghana, the Institute for Justice and Reconciliation (IJR) in South Africa, the Institute for Development Studies (IDS) at the University of Nairobi in Kenya, and the Institute for Empirical Research in Political Economy (IREEP) in Benin. Michigan State University (MSU) and the University of Cape Town (UCT) provide technical support to the network.

Core support for Afrobarometer Rounds 5 and 6 has been provided by the UK's Department for International Development (DFID), the Mo Ibrahim Foundation, the Swedish International Development Cooperation Agency (SIDA), the United States Agency for International Development (USAID), and the World Bank.

For more information, please visit [www.afrobarometer.org](http://www.afrobarometer.org).

Follow our global release updates on #VoicesAfrica on Twitter and Facebook.

**Afrobarometer Dispatch No. 69 | 14 January 2016**