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1. Introduction and Background

The Africa Infrastructure Development Index (AIDI) is produced by the African Development Bank and serves a number of key objectives, principally: (i) to monitor and evaluate the status and progress of infrastructure development across the continent; (ii) to assist in resource allocation within the framework of ADF replenishments; and (iii) to contribute to policy dialogue within the Bank and between the Bank, RMCs and other development organizations.

The AIDI also serves as a key tool in evaluating and monitoring the continent's progress toward attainment of the "High 5s," the number one priority being to "light up and power Africa." The indicators produced by the AIDI also generate other indices relating to High 5s, namely the "Feed Africa Index," "Industrialize Africa Index," and "Integrate Africa Index."

The methodology on which the AIDI is based, and the background and rationale for its development, are expounded

in an earlier brief, namely "The Africa Infrastructure Development Index (AIDI), May 2013."¹ Readers are requested to refer to that document for full details. A revision of the original methodology is currently underway as more data are collected under the auspices of the Africa Infrastructure Knowledge Program (AIKP).

The current AIDI covers the latest data collected by the Bank over the period 2000-2013 under the infrastructure statistics component of its Statistical Capacity Building program in African countries. The AIDI is updated and released annually.

The annual update presents selected indicators that comprise the Index's major components, namely: (i) Transport; (ii) Electricity; (iii) ICT; and (iv) Water and Sanitation.

This brief charts the progress made by African countries over the period 2010-2013 and discusses the reasons behind the latest trends.

¹ Available online at: http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Economic_Brief_-_The_Africa_Infrastructure_Development_Index.pdf

2. The AIDI 2016 Highlights

A marked overall improvement in AIDI 2016 scores:

In general, AIDI scores are improving for all countries, although the rate of progress for some nations has been insufficient to gain promotion in the AIDI rankings.

The top winners in terms of rankings:

Mali gained 9 positions (owing to fast ICT growth), followed by Kenya and Mauritania (5 positions due to ICT and transportation improvements), Ghana (4 positions due to ICT growth), Nigeria (3 positions thanks to ICT growth), Gambia, Senegal, Tanzania, and Madagascar (2 positions each due to improvements in ICT, water supply & sanitation, and transport - the latter to a lesser degree).

The main losers in terms of rankings:

Zimbabwe lost 5 positions (owing to slower growth in the sectors of transport and water supply & sanitation), followed by Burundi and Djibouti (4 positions owing to slow growth in ICT), and Lesotho (3 positions owing to slower growth in the power sector).

Subregional rankings remain stable:

The best performing subregion to emerge was North Africa, followed by Southern Africa, West Africa, Central Africa, and East Africa.

ICT emerges as the main driver of AIDI improvements:

The ICT sector has driven the greatest improvements in the AIDI ratings over the past decade, compared to all other sectors. It is no coincidence that the top ten ranked countries in the latest AIDI were those with the highest growth in their ICT sectors. According to the AfDB report "African Telecom Infrastructure Investment Needs, April 2015", the period 2005-2010 was a period of very high growth for mobile telephony, marked by the emergence of new operators in the market, massive growth in coverage extensions, broadband speeds, as well as user subscriptions. The period 2010-2015 also witnessed the development of new submarine and regional overland cables, which provided huge new capacity around coastal Africa, as well as facilitating mobile operator consolidation. This period also saw large investments by the private sector and the emergence of public-private partnerships (PPPs) in some countries, which has been a major factor behind the growth. Over the next few decades, there will be a need to upgrade and modernize the mobile networks to

support the shift to smartphones. The need for fiber broadband networks and the demand by both corporations and the general public for superfast fiber access at national levels have emerged as urgent priorities to keep pace with global developments, and this will require major financial investment. It is anticipated that in the near to medium term, ICT will continue to lead the growth and improvement in infrastructure development, as captured by the AIDI scores.

Transport and power sectors remain crucial to infrastructure development, though recording slower growth:

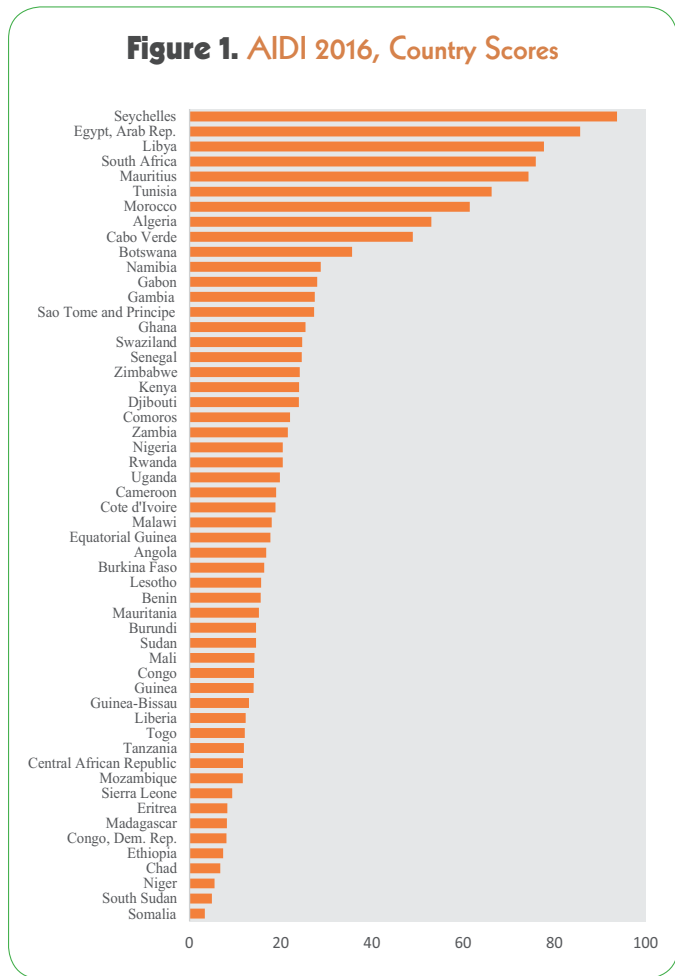
The transport and power sectors require a much higher level of investment to fuel their growth. Although these sectors are crucial components of the AIDI, their impact in terms of boosting the rankings of African countries has of much lesser significance than that of the ICT sector. Although progress has been made in both sectors across the continent, the rate of that growth has not been great enough to affect individual country rankings in the AIDI. As the Bank's first objective over the next decade, in terms of the High 5s, is to "Light up and Power Africa", investments by the AfDB targeting this sector should eventuate in major improvements in the AIDI rankings. The Bank's key role in catalyzing resources from development partners and from the private sector through its own participation in projects and programs in this sector, will also boost investment levels.

Water supply and sanitation – disappointing progress for many countries:

Slower progress in water supply and sanitation can be observed in many African countries, compared to developing countries in other global regions. Surprisingly, some countries that ranked in the top ten according to the AIDI scores still lack improved sanitation facilities, particularly in rural areas. In about half of the countries that make up the African continent, less than 35% of their populations have access to improved sanitation facilities and less than 76% have access to improved water sources. The progress made in this area still lags well below the targets set by the UN's Sustainable Development Goals (SDGs). This needs to be addressed urgently, given the massive impact of this sector on the quality of life of Africans and its linkages to other sectors such as health – particularly in rural areas. Clearly, policies and investments targeting this sector are imperative to drive up overall AIDI scores and to achieve many of the SDGs.

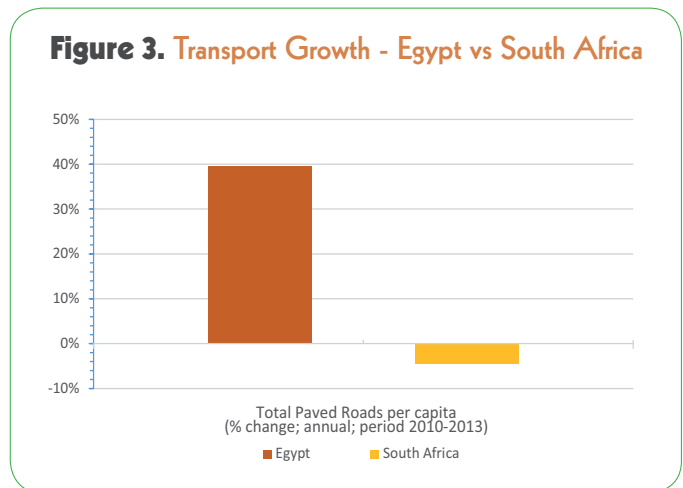
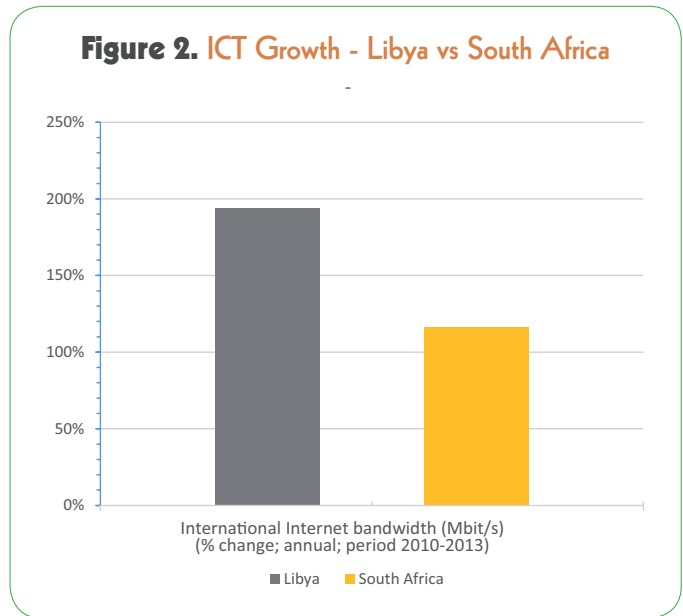
3. Main Results

The AIDI 2016 results are presented in the form of scores and rankings using data collected by the Bank for the period 2010-2013. In general, scores are improving for all African countries, although not necessarily at a sufficient rate to boost the rankings of many countries. Figure 1 shows the status of all African countries according to the 2016 scores.



The AIDI 2016 shows that the top ten ranked countries remained the same as in the AIDI 2013, namely Seychelles, Egypt, Libya, South Africa, Mauritius, Tunisia, Morocco, Algeria, Cabo Verde, and Botswana (cf. Table 1), although their specific rankings sometimes changed. These top ten countries are characterized principally by a robust performance in the following sectors: ICT, transport and power. It is worth noting that within this top performance group, Egypt and Libya rose respectively one position in the rankings, against South Africa which lost two positions. This

was due to progress made by Libya with faster growth in international internet bandwidth (cf. Figure 2) and by Egypt in respect of its growth in road density per capita (Figure 3) compared to South Africa.



The bottom ten countries in the rankings are Mozambique, Sierra Leone, Madagascar, Eritrea, Democratic Republic of Congo, Ethiopia, Chad, Niger, South Sudan, and Somalia. Notably, this group is characterized by low performance in ICT, transport and power. It is evident that these three sectors are responsibly primarily for the wide differentiation between the most advanced countries ver-



sus the less developed countries in Africa, according to the AIDI.

The AIDI 2016 results reveal an improvement in the bottom ten countries compared to the AIDI 2013 rankings. The two countries that elevated themselves out of the 2010 bottom ten were Mali and Tanzania. Mali gained nine positions (from rank 44th to 35th) and Tanzania two positions (from rank 45th to 43th) (cf. Table 1). This was due to accelerated progress in phone (landline

plus mobile) subscriptions for Mali (cf. Figure 4), and in wired broadband internet subscriptions for Tanzania (cf. Figure 5) compared to the bottom ten countries. The accelerated growth was already evident for these two countries over the period 2000-2010 (cf. the previous AIDI brief dated May 2013; see footnote 1) due to their progress in ICT improvements. However, the Central African Republic and Mozambique have slipped in their rankings to join the bottom ten group of countries.

Figure 4. ICT: Mali vs Bottom Ten

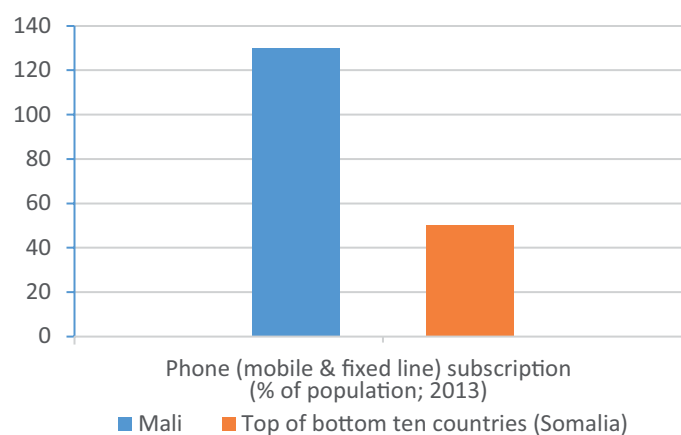


Figure 5. ICT: Tanzania vs Bottom Ten

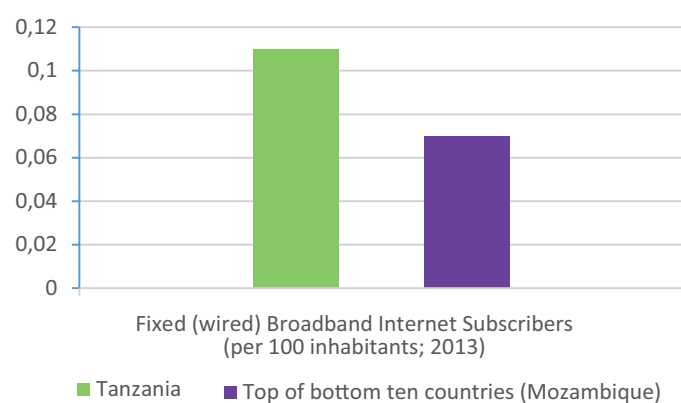
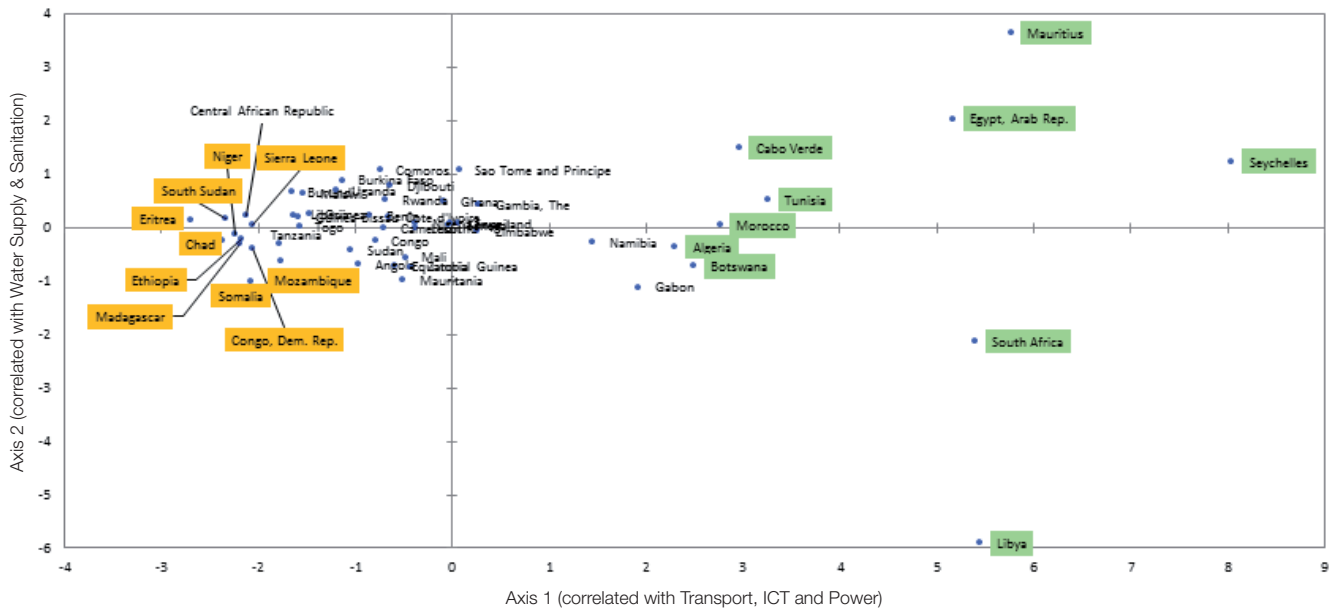


Figure 6 below shows in the form of scatterplot the differentiation between the top ten and the bottom ten clusters of countries.

Figure 6. Principal Component Analysis Scatterplot



Axis 1 characterizes the top ten and the bottom ten clusters. This axis is correlated with Transport, ICT and Power. The countries in green are the top ten countries according to the AIDI index (best performers in the above sectors) while those in yellow represent the bottom ten.

Axis 2 differentiates the performance of countries mainly in terms of their development in Water Supply and Sanitation.



In terms of a comparison of overall infrastructure development across the five subregions of the continent, North Africa emerges as the top performer followed by Southern Africa, West Africa, Central Africa, and East Africa (cf. Figure 7 and Table 2).

North and Southern Africa demonstrate higher performance in the following areas: ICT (mobile phone and internet subscription with greater international internet bandwidth), improved sanitation facilities, and transport.

On the other hand, West Africa performs well in terms of fixed line phone subscriptions, number of internet users, paved road density, and electricity generation to a lesser degree.

Central Africa and East Africa have moderate and sometimes low performance in terms of water supply, international internet bandwidth, paved road density, and phone subscriptions (both mobile and fixed). These subregions still have considerable potential for growth in these areas.

Figure 7. AIDI 2016: Africa Subregional Comparison

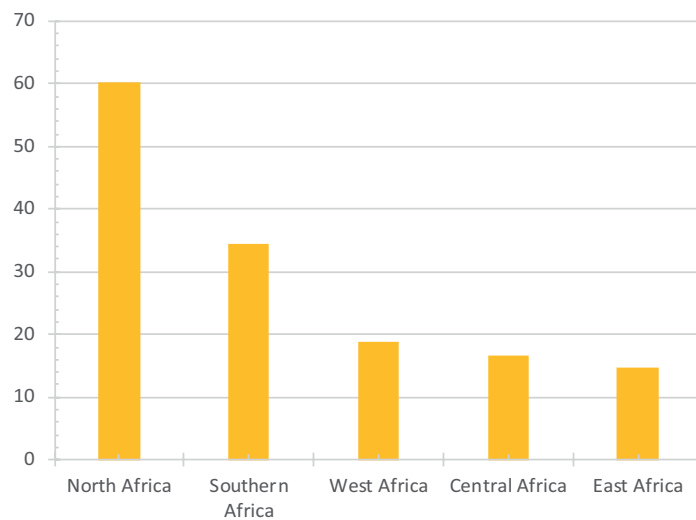


Table 1. Africa Infrastructure Development Index 2016

Rank	Country	2013	Rank	Country	2014	Rank	Country	2015	Rank	Country	2016
1	Seychelles	84.41	1	Seychelles	89.57	1	Seychelles	93.71	1	Seychelles	93.92
2	South Africa	78.97	2	Egypt. Arab Rep.	81.11	2	Egypt. Arab Rep.	85.62	2	Egypt. Arab Rep.	85.66
3	Egypt. Arab Rep.	77.67	3	South Africa	73.81	3	Libya	77.67	3	Libya	77.79
4	Libya	71.37	4	Libya	73.44	4	South Africa	75.90	4	South Africa	75.51
5	Mauritius	67.01	5	Mauritius	71.21	5	Mauritius	74.28	5	Mauritius	74.07
6	Tunisia	59.51	6	Tunisia	61.88	6	Tunisia	66.19	6	Tunisia	66.26
7	Morocco	51.81	7	Morocco	56.66	7	Morocco	61.40	7	Morocco	62.40
8	Algeria	47.78	8	Algeria	49.91	8	Algeria	52.98	8	Algeria	53.39
9	Cabo Verde	44.11	9	Cabo Verde	46.20	9	Cabo Verde	48.95	9	Cabo Verde	49.43
10	Botswana	33.50	10	Botswana	34.76	10	Botswana	35.64	10	Botswana	35.63
11	Namibia	27.83	11	Namibia	28.26	11	Namibia	28.73	11	Namibia	28.79
12	Gabon	25.90	12	Gabon	26.97	12	Gabon	27.97	12	Gabon	27.75
13	Sao Tome and Principe	24.75	13	Gambia	26.36	13	Gambia	27.45	13	Gambia	27.61
14	Zimbabwe	24.72	14	Sao Tome and Principe	26.05	14	Sao Tome and Principe	27.33	14	Sao Tome and Principe	27.38
15	Gambia	24.71	15	Zimbabwe	23.86	15	Ghana	25.43	15	Ghana	26.09
16	Djibouti	23.45	16	Ghana	23.75	16	Swaziland	24.69	16	Senegal	24.70
17	Swaziland	22.30	17	Djibouti	23.44	17	Senegal	24.58	17	Swaziland	24.62
18	Senegal	21.66	18	Swaziland	23.40	18	Zimbabwe	24.17	18	Kenya	24.37
19	Ghana	21.11	19	Senegal	23.06	19	Kenya	24.00	19	Zimbabwe	24.14
20	Comoros	20.95	20	Kenya	21.85	20	Djibouti	23.95	20	Djibouti	23.92
21	Zambia	20.13	21	Comoros	21.64	21	Comoros	22.03	21	Comoros	22.11
22	Rwanda	18.65	22	Zambia	20.87	22	Zambia	21.54	22	Zambia	21.54
23	Kenya	18.43	23	Rwanda	19.52	23	Nigeria	20.45	23	Nigeria	20.60
24	Uganda	17.88	24	Nigeria	19.35	24	Rwanda	20.44	24	Rwanda	20.45
25	Cote d'Ivoire	17.75	25	Uganda	18.60	25	Uganda	19.81	25	Uganda	20.00
26	Nigeria	17.58	26	Cameroon	18.19	26	Cameroon	18.98	26	Cote d'Ivoire	19.06
27	Equatorial Guinea	17.30	27	Cote d'Ivoire	18.13	27	Cote d'Ivoire	18.85	27	Cameroon	19.03
28	Cameroon	16.79	28	Malawi	17.13	28	Malawi	18.01	28	Malawi	18.44
29	Malawi	16.45	29	Equatorial Guinea	17.03	29	Equatorial Guinea	17.70	29	Equatorial Guinea	17.92
30	Burkina Faso	15.33	30	Angola	16.39	30	Angola	16.82	30	Burkina Faso	16.52
31	Lesotho	15.11	31	Burkina Faso	15.66	31	Burkina Faso	16.38	31	Angola	16.46
32	Angola	14.99	32	Lesotho	15.45	32	Lesotho	15.70	32	Mauritania	16.19
33	Burundi	14.57	33	Benin	14.68	33	Benin	15.59	33	Benin	15.78
34	Benin	13.72	34	Burundi	14.52	34	Mauritania	15.23	34	Lesotho	15.68
35	Sudan	13.21	35	Mauritania	14.43	35	Burundi	14.60	35	Mali	15.05
36	Congo. Rep.	13.12	36	Sudan	13.71	36	Sudan	14.59	36	Sudan	14.67
37	Mauritania	12.53	37	Congo. Rep.	13.39	37	Mali	14.23	37	Burundi	14.62
38	Guinea	12.43	38	Guinea	13.38	38	Congo. Rep.	14.16	38	Congo. Rep.	14.46
39	Liberia	11.18	39	Mali	12.25	39	Guinea	14.06	39	Guinea	14.23
40	Togo	10.80	40	Guinea-Bissau	12.03	40	Guinea-Bissau	13.04	40	Guinea-Bissau	13.41
41	Guinea-Bissau	10.61	41	Liberia	11.59	41	Liberia	12.31	41	Liberia	12.42
42	Central African Republic	10.52	42	Togo	11.48	42	Togo	12.12	42	Togo	12.17
43	Mozambique	10.45	43	Central African Republic	11.20	43	Tanzania	11.92	43	Tanzania	11.97
44	Mali	10.29	44	Mozambique	11.20	44	Central African Republic	11.71	44	Central African Republic	11.86
45	Tanzania	10.21	45	Tanzania	11.11	45	Mozambique	11.66	45	Mozambique	11.60
46	Sierra Leone	7.55	46	Sierra Leone	8.584	46	Sierra Leone	9.348	46	Sierra Leone	9.387
47	Eritrea	7.25	47	Eritrea	7.840	47	Eritrea	8.310	47	Madagascar	8.447
48	Congo. Dem. Rep.	6.81	48	Congo. Dem. Rep.	7.566	48	Madagascar	8.173	48	Eritrea	8.265
49	Madagascar	6.60	49	Madagascar	7.466	49	Congo. Dem. Rep.	8.089	49	Congo. Dem. Rep.	8.163
50	Chad	5.46	50	Ethiopia	6.444	50	Ethiopia	7.380	50	Ethiopia	7.557
51	Ethiopia	5.37	51	Chad	6.045	51	Chad	6.761	51	Chad	6.637
52	Niger	5.04	52	Niger	5.348	52	Niger	5.486	52	Niger	5.336
53	Somalia	2.79	53	South Sudan	4.337	53	South Sudan	4.923	53	South Sudan	4.939
54	South Sudan	—	54	Somalia	3.174	54	Somalia	3.364	54	Somalia	3.355

Note: The results for 2013-2016 are based on data collected for the period 2010-2013

Table 2. Infrastructure Development Index by Region, 2016

Rank	Country	2013	Rank	Country	2014	Rank	Country	2015	Rank	Country	2016
1	North Africa	63.80	1	North Africa	56.24	1	North Africa	59.85	1	North Africa	60.28
2	Southern Africa	35.15	2	Southern Africa	33.34	2	Southern Africa	34.54	2	Southern Africa	34.53
3	West Africa	16.26	3	West Africa	17.46	3	West Africa	18.55	3	West Africa	18.79
4	Central Africa	15.70	4	Central Africa	15.80	4	Central Africa	16.59	4	Central Africa	16.65
5	East Africa	11.58	5	East Africa	13.85	5	East Africa	14.61	5	East Africa	14.68

Note: The results for 2013-2016 are based on data collected for the period 2010-2013

4. Conclusions

All countries improved their scores in the AIDI 2016, though at different rates. The top ten countries remained constant over the period but with slight changes in their rankings. It is noteworthy that any significant improvement in the rankings of countries was mainly due to progress in the ICT sector and, to a lesser degree, in transport. No significant improvements were shown in the AIDI rankings as a result of progress in the power sector or in water supply and sanitation. This is because African countries have

made a similar rate of progress in these sectors. At the subregional level, the ranking has not changed over the period. Although Central and East African countries (accounting for about 0.4 billion people) have maintained their 4th and 5th position, these subregions have great potential to improve their scores and rankings in the future. If real improvements are made in Africa in the near term in the power sector, the AIDI index will surely capture this and we can expect to see significant changes in the rankings and scores.

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Annexes

I. Transport Composite Index 2016

Rank	Country	2013	Rank	Country	2014	Rank	Country	2015	Rank	Country	2016
1	Egypt, Arab Rep.	55.03	1	Egypt, Arab Rep.	55.96	1	Egypt, Arab Rep.	55.67	1	Egypt, Arab Rep.	55.38
3	Seychelles	51.02	2	Libya	53.28	2	Libya	53.04	2	Libya	52.84
2	Libya	50.14	3	Seychelles	50.78	3	Seychelles	50.63	3	Seychelles	50.50
4	Mauritius	36.58	4	Mauritius	36.31	4	Mauritius	36.20	4	Mauritius	36.10
5	Cabo Verde	26.91	5	Cabo Verde	26.81	5	Cabo Verde	26.71	5	Cabo Verde	26.59
6	Botswana	23.43	6	Botswana	24.69	6	Botswana	24.57	6	Botswana	24.45
7	Algeria	17.48	7	Namibia	18.23	7	Algeria	18.42	7	Algeria	18.21
8	Namibia	16.01	8	Algeria	18.21	8	Namibia	17.97	8	Namibia	17.72
9	Comoros	15.81	9	Comoros	15.87	9	Comoros	15.72	9	Comoros	15.58
10	Sao Tome and Principe	14.96	10	Sao Tome and Principe	14.29	10	Sao Tome and Principe	14.11	10	Sao Tome and Principe	13.94
13	Rwanda	13.54	11	Lesotho	13.13	11	Lesotho	13.05	11	Lesotho	12.98
11	Zimbabwe	13.33	12	Rwanda	13.08	12	Rwanda	13.00	12	Rwanda	12.93
12	South Africa	12.94	13	South Africa	12.83	13	South Africa	12.77	13	South Africa	12.72
14	Ghana	12.59	14	Zimbabwe	12.81	14	Zimbabwe	12.61	14	Zimbabwe	12.40
16	Burkina Faso	12.16	15	Djibouti	12.47	15	Djibouti	12.35	15	Djibouti	12.23
15	Djibouti	11.74	16	Kenya	12.40	16	Kenya	12.29	16	Kenya	12.19
17	Tunisia	10.85	17	Ghana	12.33	17	Ghana	12.24	17	Ghana	12.15
18	Morocco	9.76	18	Burkina Faso	10.75	18	Burkina Faso	10.70	18	Burkina Faso	10.66
19	Burundi	9.47	19	Tunisia	10.70	19	Tunisia	10.63	19	Tunisia	10.56
20	Uganda	8.88	20	Morocco	10.07	20	Morocco	9.98	20	Morocco	9.90
21	Swaziland	8.76	21	Zambia	9.73	21	Zambia	9.50	21	Zambia	9.27
22	Gambia	8.40	22	Burundi	9.10	22	Burundi	9.05	22	Burundi	9.00
23	Zambia	7.81	23	Uganda	8.80	23	Uganda	8.70	23	Uganda	8.60
24	Lesotho	7.27	24	Swaziland	8.63	24	Swaziland	8.56	24	Swaziland	8.50
25	Togo	7.02	25	Gambia	8.30	25	Gambia	8.21	25	Gambia	8.12
26	Cote d'Ivoire	6.74	26	Togo	6.90	26	Togo	6.83	26	Togo	6.77
27	Guinea	6.28	27	Cote d'Ivoire	6.70	27	Cote d'Ivoire	6.64	27	Cote d'Ivoire	6.59
31	Benin	5.19	28	Guinea	5.98	28	Guinea	5.92	28	Guinea	5.86
32	Nigeria	5.06	29	Mauritania	5.49	29	Mauritania	5.38	29	Mauritania	5.28
30	Malawi	5.04	30	Benin	5.02	30	Benin	4.98	30	Benin	4.95
28	Guinea-Bissau	5.00	31	Malawi	5.01	31	Malawi	4.94	31	Nigeria	4.89
29	Mauritania	4.87	32	Nigeria	4.96	32	Nigeria	4.92	32	Malawi	4.88
33	Kenya	4.74	33	Guinea-Bissau	4.92	33	Guinea-Bissau	4.84	33	Guinea-Bissau	4.78
35	Sierra Leone	4.38	34	Sierra Leone	4.33	34	Sierra Leone	4.31	34	Sierra Leone	4.28
34	Gabon	4.31	35	Gabon	4.32	35	Gabon	4.24	35	Gabon	4.16
36	Senegal	3.37	36	Tanzania	3.93	36	Tanzania	3.88	36	Tanzania	3.84
37	Tanzania	3.14	37	Cameroon	3.75	37	Cameroon	3.70	37	Cameroon	3.65
38	Madagascar	3.02	38	Senegal	3.59	38	Senegal	3.52	38	Senegal	3.47
39	Liberia	2.98	39	Central African Republic	3.17	39	Madagascar	3.06	39	Madagascar	3.02
40	Cameroon	2.86	40	Madagascar	3.10	40	Central African Republic	3.03	40	Central African Republic	3.00
42	Equatorial Guinea	2.60	41	Liberia	2.98	41	Liberia	2.95	41	Liberia	2.92
41	Mali	2.47	42	Mali	2.74	42	Mali	2.68	42	Mali	2.63
43	Congo	2.34	43	Equatorial Guinea	2.57	43	Equatorial Guinea	2.56	43	Equatorial Guinea	2.55
44	Central African Republic	2.22	44	Congo	2.37	44	Congo	2.33	44	Congo	2.30
45	Angola	2.09	45	Angola	2.12	45	Angola	2.07	45	Angola	2.04
47	Niger	2.05	46	Niger	2.08	46	Niger	2.03	46	Somalia	2.00
46	Somalia	2.05	47	Somalia	2.07	47	Somalia	2.03	47	Niger	1.99
48	Mozambique	1.92	48	Mozambique	1.96	48	Mozambique	1.93	48	Mozambique	1.90
49	Ethiopia	1.70	49	Ethiopia	1.70	49	Ethiopia	1.69	49	Ethiopia	1.68
50	Congo, Dem. Rep.	1.53	50	Congo, Dem. Rep.	1.56	50	Congo, Dem. Rep.	1.55	50	Congo, Dem. Rep.	1.54
51	Eritrea	1.35	51	Eritrea	1.33	51	Eritrea	1.31	51	Eritrea	1.29
52	Chad	1.11	52	Chad	1.14	52	Chad	1.13	52	Chad	1.12
53	Sudan	0.48	53	Sudan	0.58	53	Sudan	0.57	53	Sudan	0.57
54	South Sudan	0.03	54	South Sudan	0.04	54	South Sudan	0.04	54	South Sudan	0.05



II. Electricity Index 2016

Rank	Country	2013	Rank	Country	2014	Rank	Country	2015	Rank	Country	2016
2	South Africa	4825.72	1	South Africa	4657.09	1	Libya	5083.39	1	Libya	5281.66
1	Libya	4675.95	2	Libya	4127.59	2	South Africa	4522.43	2	South Africa	4523.84
3	Seychelles	3152.50	3	Seychelles	3240.59	3	Seychelles	3343.07	3	Seychelles	3545.52
4	Mauritius	1951.93	4	Mauritius	2095.45	4	Mauritius	2116.29	4	Mauritius	2172.39
5	Egypt, Arab Rep.	1710.15	5	Egypt, Arab Rep.	1776.48	5	Egypt, Arab Rep.	1812.48	5	Egypt, Arab Rep.	1876.69
6	Tunisia	1444.67	6	Tunisia	1415.20	6	Tunisia	1478.20	6	Algeria	1617.50
8	Algeria	1207.66	7	Algeria	1312.09	7	Algeria	1441.93	7	Tunisia	1518.97
7	Gabon	1180.46	8	Gabon	1259.75	8	Gabon	1308.34	8	Gabon	1349.10
9	Zambia	855.09	9	Zambia	791.99	9	Zambia	793.29	9	Morocco	822.52
11	Mozambique	705.35	10	Morocco	731.13	10	Namibia	783.72	10	Zambia	804.07
10	Morocco	661.23	11	Namibia	707.54	11	Morocco	768.55	11	Namibia	789.20
12	Namibia	633.10	12	Mozambique	665.99	12	Cabo Verde	612.93	12	Cabo Verde	625.63
14	Zimbabwe	621.12	13	Cabo Verde	620.00	13	Mozambique	583.45	13	Mozambique	547.10
21	Cameroon	578.63	14	Zimbabwe	511.87	14	Zimbabwe	531.12	14	Zimbabwe	539.17
15	Swaziland	418.19	15	Ghana	437.49	15	Ghana	458.26	15	Ghana	492.42
17	Djibouti	365.69	16	Djibouti	392.02	16	Djibouti	392.70	16	Congo	408.36
16	Ghana	336.70	17	Sao Tome and Principe	343.55	17	Sao Tome and Principe	364.18	17	Djibouti	393.96
13	Cabo Verde	293.95	18	Swaziland	342.28	18	Swaziland	345.05	18	Sao Tome and Principe	391.55
20	Cote d'Ivoire	289.85	19	Lesotho	309.89	19	Cote d'Ivoire	316.93	19	Swaziland	333.16
22	Angola	268.19	20	Congo	300.42	20	Congo	304.00	20	Cote d'Ivoire	327.75
26	Senegal	222.66	21	Cote d'Ivoire	284.89	21	Cameroon	284.17	21	Mauritania	289.12
24	Botswana	214.04	22	Cameroon	281.07	22	Mauritania	274.02	22	Cameroon	285.24
23	Mauritania	202.61	23	Mauritania	260.64	23	Sudan	257.50	23	Sudan	284.09
25	Sudan	185.38	24	Angola	251.20	24	Angola	241.34	24	Angola	247.74
19	Sao Tome and Principe	181.38	25	Sudan	237.85	25	Lesotho	236.23	25	Senegal	234.60
28	Kenya	180.92	26	Senegal	213.90	26	Senegal	228.45	26	Lesotho	214.21
29	Nigeria	156.99	27	Botswana	196.68	27	Kenya	190.94	27	Kenya	198.61
32	Equatorial Guinea	138.49	28	Kenya	185.01	28	Nigeria	162.07	28	Nigeria	179.65
27	Congo	135.36	29	Nigeria	156.96	29	Malawi	138.85	29	Malawi	145.67
30	Gambia	133.07	30	Malawi	136.21	30	Gambia	130.04	30	Equatorial Guinea	128.05
31	Malawi	132.40	31	Gambia	131.50	31	Equatorial Guinea	129.24	31	Gambia	127.34
33	Congo, Dem. Rep.	118.30	32	Equatorial Guinea	129.18	32	Tanzania	113.72	32	Tanzania	117.40
35	Guinea	97.07	33	Congo, Dem. Rep.	114.59	33	Congo, Dem. Rep.	112.18	33	Congo, Dem. Rep.	109.24
34	Tanzania	95.93	34	Tanzania	106.02	34	Botswana	110.18	34	Madagascar	106.78
18	Lesotho	92.11	35	Guinea	83.95	35	Madagascar	90.83	35	Uganda	93.12
37	Liberia	83.87	36	Liberia	73.54	36	Uganda	86.02	36	Ethiopia	83.73
36	Uganda	71.98	37	Uganda	72.77	37	Guinea	83.50	37	Guinea	81.56
40	Ethiopia	59.42	38	Ethiopia	69.58	38	Ethiopia	71.94	38	Botswana	80.98
41	Madagascar	58.46	39	Eritrea	66.19	39	Liberia	71.60	39	Liberia	74.06
38	Eritrea	55.66	40	Comoros	60.06	40	Eritrea	69.09	40	Mali	73.66
39	Comoros	54.44	41	Mali	58.83	41	Mali	58.90	41	Eritrea	72.26
42	Guinea-Bissau	44.21	42	Madagascar	58.44	42	Comoros	58.61	42	Comoros	58.13
44	Burkina Faso	40.68	43	Central African Republic	38.62	43	Central African Republic	39.18	43	Central African Republic	40.17
43	Central African Republic	36.35	44	Guinea-Bissau	32.87	44	Burkina Faso	31.46	44	Somalia	31.00
45	Mali	33.83	45	Somalia	31.61	45	Somalia	31.39	45	Rwanda	30.55
46	Somalia	33.22	46	Burkina Faso	31.17	46	Guinea-Bissau	29.16	46	Burkina Faso	28.33
48	Rwanda	26.37	47	Rwanda	28.44	47	Rwanda	28.68	47	Guinea-Bissau	26.82
47	Sierra Leone	24.71	48	Sierra Leone	24.54	48	Sierra Leone	23.99	48	Sierra Leone	24.71
49	Togo	21.09	49	Togo	18.73	49	Niger	20.13	49	Burundi	22.91
52	Burundi	18.13	50	Niger	18.29	50	Burundi	19.95	50	Niger	22.08
50	Niger	16.11	51	Chad	16.26	51	Togo	16.16	51	Chad	16.54
53	Benin	16.05	52	Burundi	15.53	52	Chad	16.12	52	Benin	16.16
51	Chad	8.72	53	Benin	15.03	53	Benin	15.32	53	Togo	14.49
54	South Sudan	–	54	South Sudan	–	54	South Sudan	–	54	South Sudan	–

III. ICT Composite Index 2016

Rank	Country	2013	Rank	Country	2014	Rank	Country	2015	Rank	Country	2016
1	Seychelles	31.59	1	Seychelles	42.45	1	South Africa	66.08	1	South Africa	71.59
2	Egypt	29.95	2	Egypt	40.70	2	Seychelles	60.74	2	Seychelles	59.97
3	Tunisia	28.82	3	South Africa	39.58	3	Mauritius	55.08	3	Mauritius	54.41
4	Morocco	28.78	4	Mauritius	37.32	4	Morocco	53.33	4	Morocco	48.41
5	South Africa	26.88	5	Morocco	36.32	5	Egypt	51.41	5	Egypt	46.06
6	Mauritius	25.99	6	Tunisia	35.07	6	Tunisia	44.57	6	Tunisia	39.21
7	Libya	19.17	7	Cabo Verde	24.21	7	Cabo Verde	32.9	7	Libya	33.10
8	Cabo Verde	18.54	8	Libya	21.62	8	Libya	31.2	8	Cabo Verde	32.54
9	Algeria	16.90	9	Algeria	20.38	9	Algeria	27.19	9	Algeria	27.49
10	Botswana	10.74	10	Kenya	17.79	10	Kenya	25.26	10	Kenya	26.69
11	Namibia	9.73	11	Botswana	16.27	11	Botswana	24.91	11	Botswana	25.34
12	Nigeria	9.62	12	Gabon	15.09	12	Gabon	24.65	12	Algeria	24.97
13	Senegal	9.56	13	Nigeria	14.06	13	Nigeria	21.74	13	Nigeria	23.63
14	Kenya	9.06	14	Namibia	13.51	14	Namibia	19.09	14	Namibia	21.17
15	Gabon	9.04	15	Senegal	12.54	15	Senegal	18.72	15	Senegal	18.84
16	Sao Tome and Principe	8.88	16	Sao Tome and Principe	11.78	16	Zimbabwe	18.43	16	Zimbabwe	18.33
17	Gambia	8.04	17	Sudan	11.72	17	Sudan	17.06	17	Swaziland	16.96
18	Sudan	7.84	18	Ghana	11.50	18	Ghana	16.82	18	Ghana	16.50
19	Zimbabwe	7.13	19	Swaziland	11.16	19	Sao Tome and Principe	16.6	19	Sao Tome and Principe	15.90
20	Congo	7.05	20	Zimbabwe	10.94	20	Swaziland	16.08	20	Gambia	15.87
21	Swaziland	7.01	21	Gambia	9.96	21	Gambia	14.77	21	Sudan	15.87
22	Ghana	6.89	22	Angola	9.40	22	Mauritania	14.77	22	Mali	14.98
23	Mauritania	6.34	23	Uganda	9.32	23	Zambia	14.15	23	Equatorial Guinea	13.86
24	Cote d'Ivoire	6.34	24	Equatorial Guinea	9.21	24	Angola	13.81	24	Angola	13.80
25	Uganda	5.97	25	Congo	9.13	25	Congo	13.62	25	Mauritania	13.70
26	Angola	5.78	26	Mauritania	9.10	26	Equatorial Guinea	13.57	26	Congo	13.59
27	Benin	5.75	27	Zambia	8.60	27	Mali	12.34	27	Zambia	13.30
28	Equatorial Guinea	5.53	28	Cote d'Ivoire	8.40	28	Cote d'Ivoire	12.26	28	Benin	12.70
29	South Sudan	5.51	29	Benin	7.96	29	Uganda	11.92	29	Cote d'Ivoire	12.02
30	Zambia	5.19	30	Mali	6.94	30	Benin	11.63	30	Uganda	11.72
31	Djibouti	4.61	31	Lesotho	6.45	31	Lesotho	10.81	31	Lesotho	11.53
32	Lesotho	4.22	32	South Sudan	6.45	32	Cameroon	10.79	32	South Sudan	11.00
33	Rwanda	4.16	33	Djibouti	6.31	33	Djibouti	9.92	33	Cameroon	10.38
34	Tanzania	4.03	34	Tanzania	6.05	34	Rwanda	9.16	34	Djibouti	10.21
35	Mali	4.03	35	Cameroon	5.83	35	Tanzania	8.94	35	Rwanda	9.81
36	Cameroon	3.94	36	Rwanda	5.59	36	Burkina Faso	8.68	36	Burkina Faso	8.94
37	Togo	3.65	37	Burkina Faso	5.09	37	Guinea-Bissau	8.33	37	Togo	8.60
38	Guinea-Bissau	3.34	38	Liberia	4.91	38	Liberia	7.90	38	Tanzania	8.55
39	Burkina Faso	3.21	39	Togo	4.71	39	Togo	7.60	39	Liberia	8.19
40	Mozambique	3.15	40	Guinea-Bissau	4.47	40	Comoros	7.45	40	Comoros	7.94
41	Liberia	3.12	41	Comoros	4.45	41	South Sudan	7.13	41	Guinea	7.45
42	Comoros	2.97	42	Mozambique	4.10	42	Guinea	6.2	42	Mozambique	7.23
43	Madagascar	2.87	43	Guinea	3.98	43	Mozambique	6.09	43	Guinea-Bissau	7.20
44	Guinea	2.64	44	Madagascar	3.97	44	Madagascar	5.49	44	Somalia	6.98
45	Sierra Leone	2.37	45	Malawi	3.29	45	Malawi	5.22	45	Malawi	5.44
46	Malawi	2.08	46	Sierra Leone	3.27	46	Chad	5.20	46	Sierra Leone	5.38
47	Chad	2.01	47	Chad	3.26	47	Sierra Leone	4.76	47	Congo, Dem. Rep.	5.32
48	Central African Republic	1.92	48	Niger	2.79	48	Niger	4.24	48	Ethiopia	5.24
49	Niger	1.75	49	Central African Republic	2.45	49	Congo, Dem. Rep.	4.17	49	Madagascar	5.16
50	Burundi	1.44	50	Congo, Dem. Rep.	2.37	50	Ethiopia	4.07	50	Niger	4.96
51	Congo, Dem. Rep.	1.41	51	Ethiopia	2.22	51	Somalia	4.02	51	Chad	4.86
52	Ethiopia	1.06	52	Burundi	1.99	52	Central African Republ	3.98	52	Central African Republic	4.36
53	Somalia	0.76	53	Somalia	1.91	53	Burundi	3.09	53	Burundi	3.18
54	Eritrea	0.41	54	Eritrea	0.61	54	Eritrea	0.97	54	Eritrea	1.01

IV. Water & Sanitation Composite Index 2016

Rank	Country	2013	Rank	Country	2014	Rank	Country	2015	Rank	Country	2016
1	Egypt	99.01	1	Egypt	97.29	1	Egypt	97.47	1	Egypt	97.60
2	Mauritius	96.06	2	Seychelles	97.12	2	Seychelles	97.11	2	Seychelles	97.07
3	Seychelles	94.86	3	Tunisia	93.22	3	Tunisia	93.92	3	Tunisia	94.47
4	Tunisia	90.47	4	Algeria	83.95	4	Algeria	83.74	4	Algeria	83.49
5	Algeria	87.45	5	Botswana	78.77	5	Botswana	79.35	5	Botswana	79.91
6	South Africa	85.35	6	South Africa	76.96	6	Cabo Verde	78.11	6	Cabo Verde	79.60
7	Botswana	80.58	7	Cabo Verde	76.64	7	South Africa	77.59	7	South Africa	78.19
8	Gambia	78.48	8	Gambia	72.82	8	Gambia	73.26	8	Gambia	73.35
9	Morocco	75.13	9	Djibouti	67.34	9	Djibouti	67.44	9	Djibouti	67.53
17	Cabo Verde	74.31	10	Sao Tome and Principe	65.79	10	Cabon	66.07	10	Cabon	66.60
11	Djibouti	68.89	11	Gabon	65.51	11	Sao Tome and Principe	65.98	11	Sao Tome and Principe	66.15
12	Libya	67.48	12	Rwanda	61.37	12	Rwanda	62.28	12	Namibia	63.32
13	Comoros	67.04	13	Namibia	60.84	13	Namibia	62.09	13	Rwanda	63.15
14	Malawi	65.77	14	Comoros	60.56	14	Swaziland	61.37	14	Malawi	61.5
15	Namibia	63.63	15	Swaziland	59.77	15	Comoros	61.01	15	Comoros	61.49
16	Equatorial Guinea	61.37	16	Morocco	59.16	16	Malawi	59.92	16	Swaziland	61.37
10	Cameroon	60.44	17	Malawi	58.33	17	Morocco	59.83	17	Morocco	60.47
18	Swaziland	60.05	18	Burundi	56.76	18	Senegal	57.17	18	Senegal	57.97
19	Gabon	59.78	19	Senegal	56.34	19	Burundi	57.15	19	Burundi	57.51
20	Senegal	58.31	20	Mauritius	56.33	20	Mauritius	56.58	20	Mauritius	56.82
21	Zimbabwe	58.18	21	Cameroon	54.28	21	Cameroon	55.18	21	Cameroon	56.03
22	Sao Tome and Principe	57.78	22	Zimbabwe	53.80	22	Zimbabwe	53.64	22	Zimbabwe	53.46
23	Burundi	55.35	23	Lesotho	51.85	23	Lesotho	52.28	23	Lesotho	52.70
24	Rwanda	54.73	24	Equatorial Guinea	51.57	24	Equatorial Guinea	51.33	24	Equatorial Guinea	51.09
25	Cote d'Ivoire	50.29	25	Cote d'Ivoire	48.07	25	Cote d'Ivoire	48.56	25	Cote d'Ivoire	48.9
26	Lesotho	49.83	26	Ghana	46.70	26	Ghana	47.77	26	Ghana	48.82
27	Ghana	49.70	27	Zambia	45.68	27	Burkina Faso	47.28	27	Burkina Faso	47.70
28	Uganda	49.44	28	Burkina Faso	45.63	28	Zambia	46.36	28	Zambia	47.03
29	Zambia	48.39	29	Benin	42.72	29	Benin	43.19	29	Uganda	44.35
30	Burkina Faso	46.12	30	Uganda	41.67	30	Uganda	43.01	30	Benin	44.22
31	Angola	46.09	31	Guinea	41.45	31	Guinea	42.48	31	Guinea-Bissau	43.86
32	Central African Rep.	45.82	32	Nigeria	40.83	32	Guinea-Bissau	42.34	32	Mali	43.73
33	Guinea	43.00	33	Guinea-Bissau	40.60	33	Mali	42.00	33	Guinea	43.50
34	Liberia	42.27	34	Mali	40.27	34	Nigeria	41.45	34	Nigeria	42.06
35	Benin	41.25	35	Congo	40.17	35	Congo	40.72	35	Congo	41.25
36	Congo	40.83	36	Liberia	38.93	36	Liberia	39.77	36	Mauritania	40.82
37	Kenya	39.06	37	Central African Rep.	38.50	37	Mauritania	39.35	37	Liberia	40.61
38	Nigeria	37.84	38	Mauritania	37.86	38	Central African Rep.	39.13	38	Angola	39.52
39	Mali	37.74	39	Kenya	37.83	39	Angola	38.54	39	Central African Rep.	39.30
40	Guinea-Bissau	36.76	40	Angola	37.55	40	Kenya	38.51	40	Kenya	39.23
41	Sudan	35.38	41	Sudan	31.07	41	Sudan	31.17	41	Sudan	31.22
42	Eritrea	31.63	42	Congo, Dem. Rep.	29.85	42	Congo, Dem. Rep.	30.31	42	Ethiopia	30.79
43	Togo	31.14	43	Togo	28.60	43	Togo	29.14	43	Congo, Dem. Rep.	30.71
44	Mauritania	29.60	44	Eritrea	27.85	44	Ethiopia	28.79	44	Togo	29.68
45	Sierra Leone	26.80	45	Sierra Leone	27.81	45	Sierra Leone	28.67	45	Sierra Leone	29.54
46	Congo, Dem. Rep.	25.00	46	Ethiopia	26.77	46	Eritrea	28.46	46	Eritrea	28.64
47	Chad	23.91	47	Mozambique	26.43	47	Mozambique	27.21	47	Mozambique	28.00
48	Tanzania	23.88	48	Tanzania	25.97	48	Tanzania	26.32	48	Tanzania	26.67
49	Mozambique	23.49	49	South Sudan	24.85	49	South Sudan	24.99	49	Niger	25.94
50	Ethiopia	22.80	50	Niger	23.93	50	Niger	24.93	50	South Sudan	25.07
51	Madagascar	21.29	51	Chad	21.47	51	Chad	21.98	51	Chad	22.09
52	Niger	20.50	52	Madagascar	19.65	52	Madagascar	20.42	52	Madagascar	21.18
53	Somalia	12.94	53	Somalia	14.37	53	Somalia	14.46	53	Somalia	14.44
54	South Sudan	-	54	Libya	-	54	Libya	-	54	Libya	-