# Section 3. Annexes

The Index is part of a central database and system for collecting data on regional integration. It will capture additional data for indicators that are not part of the Index but that play a role in regional integration, from the movement of workers across borders to trade corridor costs. It is over to the Index user to make use of the information in the rankings and scores, by drilling down to priority areas, to drive concrete change at policy and operational level.

## Index Blueprint

Each country starts at the same level in the Index. Data from the period 2010-2014 or an average of the years in this period was used in the calculations.

National and regional data (including from national websites) was added to data from public sources to complete the data sources where gaps exist. Sources for the Index include: African Airlines Association, African Development Bank, ECA, International Air Transport Association, International Trade Centre, UN COMTRADE, UNCTAD, United States' Energy Information Administration, and the World Economic Outlook database of the IMF.

For the First Edition, as part of a pilot data collection and training exercise, data was collected by trained Statistical Focal Points in 26 countries, across four regional corridors and in the regions of Eastern and Southern African over a period of three months.

The Index was built in five steps in line with good practice:

- 1. Selection of Indicators
- 2. Standardization process
- 3. Calculation of Index by Dimension
- 4. Calculation of overall Index for countries
- 5. Calculation of overall Index by REC

A detailed breakdown of the country and REC scores in individual dimensions and indicators and a detailed technical note on the calculation of the index are available from the Index website:

www.integrate-africa.org.

#### **Data Limitations**

Indicators were included where 80% of countries had quality data available. Where data was missing, the most similar data sets for which data was available or an average of the scores from a comparable country were used.

#### **Index Choices**

- Overall Index calculations are based on the sum of the average of all the Dimensions. The Index does not prioritize any particular topic on regional integration.
- Each of the Indicators is given equal weight in the calculation of Dimension scores using the sum of the average of the Indicators in a Dimension (except on Free movement of people).
- The Index uses the standard Min-Max method of scaling results from 0-1 (best). That includes a standardization of the results to get the same unity of measurement to aggregate the data.
- Indicators that are chosen are not linked so there is no double counting in the calculations.

# Notes: Higher Dimension scores for countries in one REC over another.

Countries that are members of more than one REC show differences between their rankings and scores in a particular Dimension in one REC as opposed to another. This can be explained by historical links, comparative advantages, regional policies and geography.

Geographical closeness goes a long way to explaining integration intensity. With common borders, countries exchange more among themselves and transaction costs are reduced. For example, in the case of Zimbabwe its geographical proximity to SADC member countries in Southern Africa can help to explain why it has the highest integration score on Productive integration in SADC and yet is a low performer in this Dimension in COMESA.

**CEN-SAD: Scores and rankings** 

Overall classification			Dimen Trade into		n		Dimension 2 Regional infrastructure				
Country	Score	Rank	Category	Country	Score	Rank	Category	Country	Score	Rank	Category
Côte d'Ivoire	0.641	1	+	Côte d'Ivoire	0.963	1	+	Libya	0.663	1	+
Benin	0.587	2	+	Egypt	0.821	2	+	Morocco	0.544	2	+
Togo	0.581	3	+	Tunisia	0.671	3	+	Togo	0.479	3	+
Senegal	0.569	4	+	Senegal	0.624	4	+	Sudan	0.387	4	+
Niger	0.553	5	+	Sudan	0.579	5	+	Guinea	0.378	5	+
Mali	0.542	6	+	Mali	0.536	6	+	Burkina Faso	0.345	6	+
Burkina Faso	0.538	7	+	Eritrea	0.505	7	+	Nigeria	0.331	7	+
Tunisia	0.474	8	+	Nigeria	0.500	8	+	Niger	0.327	8	+
Morocco	0.445	9	+	Comoros	0.490	9	+	Egypt	0.325	9	+
Gambia	0.419	10	=	Niger	0.484	10	+	Ghana	0.316	10	+
Ghana	0.418	11	=	Burkina Faso	0.473	11	+	Tunisia	0.292	11	=
Egypt	0.386	12	_	Ghana	0.466	12	+	Benin	0.282	12	=
Nigeria	0.384	13	=	Libya	0.461	13	+	Gambia	0.281	13	=
Djibouti	0.362	14	=	Benin	0.442	14	=	Mali	0.273	14	=
Libya	0.354	15	=	Togo	0.414	15	=	Côte d'Ivoire	0.265	15	=
Guinea	0.349	16	_	Mauritania	0.401	16	=	Senegal	0.249	16	_
Kenya	0.344	17	-	Morocco	0.318	17	=	Mauritania	0.238	17	_
Mauritania	0.331	18	-	Guinea	0.258	18	=	Djibouti	0.206	18	=
Chad	0.329	19	-	Gambia	0.195	19	-	Somalia	0.199	19	=
Guinea-Bissau	0.322	20	-	Central African Republic	0.181	20	-	Eritrea	0.154	20	-
Central African Republic	0.303	21	-	Kenya	0.176	21	-	Chad	0.141	21	-
Liberia	0.271	22	-	Djibouti	0.169	22	-	Comoros	0.124	22	-
Comoros	0.252	23	-	Sierra Leone	0.058	23	-	Central African Republic	0.121	23	-
Eritrea	0.249	24	-	Chad	0.036	24	-	São Tomé and Principe	0.107	24	-
Sierra Leone	0.247	25	-	Somalia	0.018	25	-	Kenya	0.093	25	-
Sudan	0.232	26	-	Guinea-Bissau	0.008	26	-	Liberia	0.061	26	-
São Tomé and Principe	0.170	27	-	Liberia	0.001	27	-	Guinea-Bissau	0.061	27	-
Somalia**				São Tomé and Principe	0.000	28	-	Sierra Leone	0.048	28	-
Cabo Verde**				Cabo Verde	0.000			Cabo Verde**	0.000		
Average	0.395			Average	0.353			Average	0.251		
*Average/Top 4	0.594			*Average/Top 4	0.770			*Average/Top 4	0.518		

<sup>\*</sup>Average of top performing countries within REC (with a 95% confidence interval) \*\* Indicates full data not available for calculation Scores are calculated on a score of 0 (low) to 1 (high).

- Country is a high performer score is higher than average of countries
- **Country** is an average performer score is within the average of countries
- Country is a low performer –score is below the average of countries

Dimen Productive i		tion	
Country	Score	Rank	Category
Kenya	0.746	1	+
Djibouti	0.703	2	+
Morocco	0.541	3	+
Benin	0.535	4	+
Gambia	0.480	5	+
Egypt	0.433	6	+
Tunisia	0.375	7	+
Ghana	0.317	8	=
Togo	0.303	9	=
Senegal	0.302	10	=
Liberia	0.286	11	=
São Tomé and Principe	0.284	12	=
Sierra Leone	0.262	13	=
Côte d'Ivoire	0.213	14	=
Niger	0.190	15	=
Eritrea	0.176	16	=
Chad	0.174	17	=
Mali	0.172	18	=
Guinea	0.154	19	-
Burkina Faso	0.132	20	-
Libya	0.130	21	-
Nigeria	0.109	22	-
Mauritania	0.083	23	-
Sudan	0.041	24	-
Guinea-Bissau	0.012	25	-
Central African Republic	0.000	26	-
Comoros	0.000		-
Somalia	0.000	26	-
Cabo Verde**	0.000		
Average	0.247		
*Average/Top 4	0.631		

Dimension 4 Free movement of people								
Country	Score	Rank	Category					
Côte d'Ivoire	0.800	1	+					
Niger	0.761	2	+					
Mali	0.761	2	+					
Guinea	0.761	2	+					
Burkina Faso	0.757	5	+					
Togo	0.741	6	+					
Benin	0.722	7	+					
Gambia	0.722	7	+					
Guinea-Bissau	0.709	9	+					
Senegal	0.691	10	+					
Nigeria	0.691	10	+					
Sierra Leone	0.652	12	+					
Ghana	0.644	13	+					
Liberia	0.644	13	+					
Tunisia	0.606	15	+					
Mauritania	0.520	16	=					
Kenya	0.357	17	-					
Morocco	0.333	18	-					
Chad	0.319	19	-					
Somalia	0.300	20	-					
Djibouti	0.293	21	-					
Central African Republic	0.272	22	-					
Comoros	0.200	23	-					
São Tomé and Principe	0.178	24	-					
Sudan	0.154	25	-					
Eritrea	0.146	26	-					
Libya	0.139	27	-					
Egypt	0.030	28	-					
Cabo Verde	0.000	29	-					
Average	0.479							
*Average/Top 4	0.771							

Dimension 5 Financial and macroeconomic integration								
Country	Score	Rank	Category					
Niger	1.000	1	+					
Burkina Faso	0.982	2	+					
Senegal	0.981	3	+					
Chad	0.976	4	+					
Mali	0.969	5	+					
Togo	0.968	6	+					
Côte d'Ivoire	0.964	7	+					
Benin	0.952	8	+					
Central African Republic	0.939	9	+					
Guinea-Bissau	0.820	10	+					
Morocco	0.489	11	=					
Comoros	0.447	12	=					
Djibouti	0.439	13	=					
Tunisia	0.426	14	=					
Gambia	0.416	15	=					
Mauritania	0.410	16	=					
Libya	0.380	17	-					
Liberia	0.364	18	-					
Ghana	0.349	19	-					
Kenya	0.348	20	-					
Egypt	0.323	21	-					
Nigeria	0.289	22	-					
São Tomé and Principe	0.283	23	-					
Eritrea	0.262	24	-					
Sierra Leone	0.216	25	-					
Guinea	0.196	26	-					
Sudan	0.000	27	-					
Somalia**	0.000							
Cabo Verde	0.000							
Average	0.524							
*Average/Top 4	0.985							

### **COMESA: Scores and rankings**

Overall classification			Dimen Trade into		n		Dimension 2 Regional infrastructure				
Country	Score	Rank	Category	Country	Score	Rank	Category	Country	Score	Rank	Category
Kenya	0.573	1	+	Zambia	1.000	1	+	Seychelles	0.714	1	+
Zambia	0.565	2	+	Egypt	0.900	2	+	Libya	0.556	2	+
Uganda	0.520	3	+	Dem. Rep. of the Congo	0.833	3	+	Burundi	0.515	3	+
Egypt	0.511	4	+	Kenya	0.811	4	+	Egypt	0.506	4	+
Seychelles	0.506	5	+	Uganda	0.749	5	+	Mauritius	0.485	5	=
Mauritius	0.470	6	+	Libya	0.690	6	+	Kenya	0.483	6	=
Zimbabwe	0.454	7	=	Zimbabwe	0.646	7	=	Malawi	0.479	7	=
Rwanda	0.450	8	=	Sudan	0.642	8	=	Sudan	0.477	8	=
Madagascar	0.420	9	=	Rwanda	0.601	9	=	Zimbabwe	0.466	9	=
Dem. Rep. of the Congo	0.419	10	=	Malawi	0.575	10	=	Zambia	0.437	10	=
Malawi	0.412	11	=	Mauritius	0.547	11	=	Swaziland	0.437	11	=
Burundi	0.401	12	=	Madagascar	0.532	12	=	Rwanda	0.430	12	=
Swaziland	0.359	13	-	Burundi	0.523	13	=	Dem. Rep. of the Congo	0.428	13	=
Libya	0.345	14	-	Comoros	0.487	14	=	Ethiopia	0.402	14	=
Comoros	0.343	15	-	Swaziland	0.471	15	=	Madagascar	0.358	15	-
Djibouti	0.317	16	-	Eritrea	0.445	16	-	Eritrea	0.339	16	-
Eritrea	0.308	17	-	Seychelles	0.216	17	-	Djibouti	0.333	17	-
Sudan	0.275	18	-	Ethiopia	0.185	18	-	Uganda	0.301	18	-
Ethiopia	0.233	19	-	Djibouti	0.005	19	-	Comoros	0.196	19	-
Average	0.415			Average	0.572			Average	0.439		
*Average/Top 4	0.542			*Average/Top 4	0.886			*Average/Top 4	0.573		

### **EAC: Scores and rankings**

Global classification								
Country	Score	Rank	Category					
Kenya	0.656	1	+					
Uganda	0.577	2	=					
Rwanda	0.553	3	=					
Burundi	0.480	4	=					
United Rep. of Tanzania	0.433	5	-					
Average	0.540							
*Average/Top 2	0.616							

Dimension 1 Trade integration									
Country Score Rank Category									
Kenya	1.000	1	+						
Uganda	0.940	2	=						
United Rep. of Tanzania	0.780	3	=						
Rwanda	0.690	4	=						
Burundi	0.500	5	-						
Average	0.780								
*Average/Top 2	0.968								

Dimension 2 Regional infrastructure									
Country Score Rank Category									
Burundi	0.836	1	+						
Uganda	0.476	2	=						
Kenya	0.437	3	=						
Rwanda	0.366	4	=						
United Rep. of Tanzania	0.363	5	=						
Average	0.496								
*Average/Top 2	0.656								

<sup>\*</sup>Average of top performing countries within REC (with a 95% confidence interval) \*\* Indicates full data not available for calculation Scores are calculated on a score of 0 (low) to 1 (high).

- ◆ Country is a high performer score is higher than average of countries
- **Country** is an average performer score is within the average of countries
- Country is a low performer –score is below the average of countries

Dimension 3 Productive integration									
Country	Score	Rank	Category						
Egypt	0.762	1	+						
Kenya	0.749	2	+						
Uganda	0.610	3	+						
Zambia	0.610	4	+						
Madagascar	0.610	5	+						
Djibouti	0.575	6	+						
Malawi	0.503	7	=						
Swaziland	0.495	8	=						
Burundi	0.489	9	=						
Rwanda	0.422	10	=						
Seychelles	0.402	11	=						
Mauritius	0.389	12	=						
Eritrea	0.384	13	=						
Dem. Rep. of the Congo	0.368	14	-						
Zimbabwe	0.361	15	-						
Ethiopia	0.344	16	-						
Comoros	0.340	17	-						
Sudan	0.115	18	-						
Libya	0.065	19	-						
Average	0.452								
*Average/Top 4	0.683								

mension 3				Dimension 4					
	ntegrat	tion		Free movement of people					
	Score	Rank	Category	Country	Score	Rank	Category		
	0.762	1	+	Seychelles	0.700	1	+		
	0.749	2	+	Uganda	0.516	2	+		
	0.610	3	+	Mauritius	0.458	3	+		
	0.610	4	+	Kenya	0.442	4	+		
	0.610	5	+	Zambia	0.442	4	+		
	0.575	6	+	Zimbabwe	0.400	6	+		
	0.503	7	=	Swaziland	0.395	7	+		
	0.495	8	=	Rwanda	0.332	8	=		
	0.489	9	=	Malawi	0.295	9	=		
	0.422	10	=	Madagascar	0.200	10	=		
	0.402	11	=	Comoros	0.200	10	=		
	0.389	12	=	Djibouti	0.189	12	=		
	0.384	13	=	Burundi	0.147	13	-		
ngo	0.368	14	-	Dem. Rep. of the Congo	0.132	14	-		
	0.361	15	-	Eritrea	0.084	15	-		
	0.344	16	-	Ethiopia	0.074	16	-		
	0.340	17	-	Sudan	0.058	17	-		
	0.115	18	-	Egypt	0.032	18	-		
	0.065	19	-	Libya	0.000	19	-		
	0.452			Average	0.268				
	0.683			*Average/Top 4	0.529				

Dimen	sion 5							
Financial and macroeconomic integration								
Country	Score	Rank	Category					
Seychelles	0.500	1	+					
Comoros	0.489	2	+					
Djibouti	0.481	3	+					
Mauritius	0.472	4	+					
Rwanda	0.464	5	+					
Uganda	0.426	6	+					
Libya	0.416	7	+					
Madagascar	0.398	8	=					
Zimbabwe	0.396	9	=					
Kenya	0.381	10	=					
Egypt	0.354	11	=					
Zambia	0.337	12	=					
Dem. Rep. of the Congo	0.334	13	=					
Burundi	0.333	14	=					
Eritrea	0.287	15	=					
Malawi	0.210	16	-					
Ethiopia	0.162	17	-					
Sudan	0.084	18	-					
Swaziland	0.000	19	-					
Average	0.343							
*Average/Top 4	0.485							

Dimension 3 Productive integration									
Country Score Rank Category									
Kenya	0.841	1	+						
Uganda	0.725	2	=						
United Rep. of Tanzania	0.454	3	=						
Rwanda	0.409	4	=						
Burundi	0.333	5	-						
Average	0.553								
*Average/Top 2	0.783								

Dimension 4 Free movement of people								
Country	Country Score Rank Category							
Kenya	0.800	1	+					
Rwanda	0.800	1	+					
Uganda	0.700	3	=					
Burundi	0.700	3	=					
United Rep. of Tanzania	0.575	5	-					
Average	0.715							
*Average/Top 2 0.800								

Dimension 5 Financial and macroeconomic integration						
Country	Score	Rank	Category			
Rwanda	0.500	1	+			
Kenya	0.202	2	=			
Uganda	0.045	3	=			
Burundi	0.031	4	=			
United Rep. of Tanzania	0.000	5	=			
Average 0.156						
*Average/Top 2	0.351					

### **ECCAS: Scores and rankings**

Overall classification								
Country Score Rank Catego								
Cameroon	0.664	1	+					
Gabon	0.580	2	+					
Congo	0.531	3	=					
Chad	0.512	4	=					
Central African Republic	0.507	5	=					
Rwanda	0.485	6	=					
Equatorial Guinea	0.403	7	=					
Angola	0.325	8	-					
Burundi	0.276	9	-					
São Tomé and Principe	0.256	10	-					
Dem. Rep. of the Congo	0.196	11	-					
Average	0.454							
*Average/Top 4	0.572							

Dimension 1							
Trade integration							
Country	Score	Rank	Category				
Cameroon	0.980	1	+				
Angola	0.964	2	+				
Gabon	0.783	3	+				
Chad	0.747	4	+				
Rwanda	0.569	5	=				
Central African Republic	0.517	6	=				
Equatorial Guinea	0.359	7	=				
Congo	0.335	8	=				
Dem. Rep. of the Congo	0.275	9	-				
Burundi	0.002	10	-				
São Tomé and Principe	0.001	11	-				
Average	0.526						
*Average/Top 4	0.869						

Dimension 2 Regional infrastructure								
Country Score Rank Catego								
Congo	0.687	1	+					
Angola	0.659	2	+					
Gabon	0.524	3	=					
Cameroon	0.482	4	=					
Equatorial Guinea	0.419	5	=					
Rwanda	0.416	6	=					
São Tomé and Principe	0.396	7	=					
Central African Republic	0.395	8	=					
Dem. Rep. of the Congo	0.350	9	-					
Burundi	0.339	10	-					
Chad	0.196	11	-					
Average	0.451							
*Average/Top 4	0.588							

### **ECOWAS: Scores and rankings**

Overall classification						
Country	Score	Rank	Category			
Côte d'Ivoire	0.675	1	+			
Togo	0.671	2	+			
Senegal	0.628	3	+			
Niger	0.556	4	=			
Benin	0.548	5	=			
Ghana	0.546	6	=			
Burkina Faso	0.537	7	=			
Mali	0.525	8	=			
Nigeria	0.501	9	=			
Guinea-Bissau	0.500	10	=			
Gambia	0.447	11	-			
Cabo Verde	0.439	12	-			
Sierra Leone	0.404	13	-			
Liberia	0.357	14	-			
Guinea	0.301	15	-			
Average	0.509					
*Average/Top 4	0.632					

Dimension 1 Trade integration						
Country	Score	Score Rank C				
Nigeria	1.000	1	+			
Côte d'Ivoire	0.986	2	+			
Senegal	0.648	3	+			
Ghana	0.604	4	+			
Sierra Leone	0.519	5	=			
Mali	0.485	6	=			
Togo	0.466	7	=			
Niger	0.447	8	=			
Burkina Faso	0.425	9	=			
Guinea-Bissau	0.413	10	=			
Benin	0.358	11	=			
Cabo Verde	0.169	12	-			
Guinea	0.110	13	-			
Gambia	0.005	14	-			
Liberia	0.000	15	-			
Average	0.442					
*Average/Top 4	0.809					

Dimension 2							
Regional infrastructure  Country Score Rank Catego							
Cabo Verde	0.680	1	+				
Togo	0.646	2	+				
Ghana	0.603	3	+				
Gambia	0.550	4	+				
Guinea	0.430	5	=				
Burkina Faso	0.404	6	=				
Nigeria	0.385	7	=				
Benin	0.383	8	=				
Côte d'Ivoire	0.370	9	=				
Niger	0.352	10	-				
Guinea-Bissau	0.339	11	-				
Senegal	0.338	12	-				
Liberia	0.331	13	-				
Sierra Leone	0.315	14	-				
Mali	0.271	15	-				
Average	0.426						
*Average/Top 4	0.620						

<sup>\*</sup>Average of top performing countries within REC (with a 95% confidence interval) \*\* Indicates full data not available for calculation Scores are calculated on a score of 0 (low) to 1 (high).

- Country is a high performer score is higher than average of countries
- Country is an average performer score is within the average of countries
- Country is a low performer –score is below the average of countries

Dimension 3 Productive integration						
Country	Score	Rank	Category			
Burundi	0.838	1	+			
Rwanda	0.711	2	+			
Cameroon	0.439	3	=			
Gabon	0.245	4	=			
Congo	0.242	5	=			
Chad	0.190	6	=			
São Tomé and Principe	0.176	7	=			
Dem. Rep. of the Congo	0.154	8	=			
Central African Republic	0.073	9	-			
Equatorial Guinea	0.020	10	-			
Angola	0.000	11	-			
Average	0.293					
*Average/Top 4	0.558					

nension 3 ive integration			Dimension 4 Free movement of people			
Score	Rank	Category	Country	Score	Rank	Category
0.838	1	+	São Tomé and Principe	0.700	1	+
0.711	2	+	Central African Republic	0.660	2	+
0.439	3	=	Congo	0.520	3	=
0.245	4	=	Cameroon	0.450	4	=
0.242	5	=	Chad	0.450	4	=
0.190	6	=	Rwanda	0.378	6	=
0.176	7	=	Gabon	0.350	7	=
0.154	8	=	Equatorial Guinea	0.350	7	=
0.073	9	-	Burundi	0.140	9	-
0.020	10	-	Dem. Rep. of the Congo	0.140	9	-
0.000	11	-	Angola	0.000	11	-
0.293			Average	0.400		
0.558			*Average/Top 4	0.583		
	Ntegrat Score 0.838 0.711 0.439 0.245 0.242 0.190 0.176 0.154 0.073 0.020 0.000 0.293	Ntegration           Score         Rank           0.838         1           0.711         2           0.439         3           0.245         4           0.242         5           0.190         6           0.176         7           0.154         8           0.073         9           0.020         10           0.000         11           0.293	Ntegration           Score         Rank         Category           0.838         1         +           0.711         2         +           0.439         3         =           0.245         4         =           0.190         6         =           0.190         6         =           0.176         7         =           0.154         8         =           0.073         9         •           0.020         10         •           0.000         11         •           0.293         •         •	Tree moveme           Score         Rank         Category         Country         São Tomé and Principe           0.711         2         +         Central African Republic           0.439         3         =         Congo           0.245         4         =         Chad           0.190         6         =         Rwanda           0.176         7         =         Gabon           0.154         8         =         Equatorial Guinea           Burundi         Dem. Rep. of the Congo         Angola           0.020         10         =         Average	Free movement of poly           Score         Rank         Category         Country         Score           0.838         1         +         São Tomé and Principe         0.700           0.711         2         +         Central African Republic         0.660           0.439         3         =         Congo         0.520           0.245         4         =         Cameroon         0.450           0.242         5         =         Chad         0.450           0.190         6         =         Rwanda         0.378           0.176         7         =         Gabon         0.350           0.154         8         =         Equatorial Guinea         0.350           0.073         9         •         Burundi         0.140           0.000         11         •         Angola         0.000           0.293         •         Average         0.400	Free movement of people           Score         Rank         Category         Country         Score         Rank           0.838         1         ♣         São Tomé and Principe         0.700         1           0.711         2         ♣         Central African Republic         0.660         2           0.439         3         ■         Congo         0.520         3           0.245         4         ■         Cameroon         0.450         4           0.242         5         ■         Chad         0.450         4           0.190         6         ■         Rwanda         0.378         6           0.176         7         ■         Gabon         0.350         7           0.154         8         ■         Equatorial Guinea         0.350         7           0.073         9         ■         Burundi         0.140         9           0.020         10         ■         Dem. Rep. of the Congo         0.140         9           0.000         11         ■         Average         0.400

Dimension 5 Financial and macroeconomic integration							
Country Score Rank Catego							
Gabon	1.000	1	+				
Chad	0.978	2	+				
Cameroon	0.966	3	+				
Central African Republic	0.887	4	+				
Congo	0.872	5	+				
Equatorial Guinea	0.868	6	=				
Rwanda	0.350	7	=				
Dem. Rep. of the Congo	0.062	8	-				
Burundi	0.059	9	-				
São Tomé and Principe	0.008	10	-				
Angola	0.000	11	-				
Average	0.599						
*Average/Top 4	0.958						

Dimension 3 Productive integration							
Country	Score Rank Catego						
Gambia	0.517	1	+				
Togo	0.494	2	+				
Ghana	0.470	3	+				
Senegal	0.383	4	+				
Liberia	0.376	5	+				
Sierra Leone	0.353	6	+				
Côte d'Ivoire	0.280	7	=				
Benin	0.279	8	=				
Niger	0.182	9	-				
Nigeria	0.168	10	-				
Guinea	0.167	11	-				
Mali	0.119	12	-				
Cabo Verde	0.110	13	-				
Burkina Faso	0.083	14	-				
Guinea-Bissau	0.000	15	-				
Average	0.265						
*Average/Top 4	0.466						

Dimension 4 Free movement of people									
Country	Score	Rank	Category						
Côte d'Ivoire	0.800	1	=						
Togo	0.800	1	=						
Senegal	0.800	1	=						
Niger	0.800	1	=						
Benin	0.800	1	=						
Ghana	0.800	1	=						
Burkina Faso	0.800	1	=						
Mali	0.800	1	=						
Nigeria	0.800	1	=						
Guinea-Bissau	0.800	1	=						
Gambia	0.800	1	=						
Cabo Verde	0.800	1	=						
Sierra Leone	0.800	1	=						
Liberia	0.800	1	=						
Guinea	0.800	1	=						
Average	0.800								
*Average/Top 4	0.800								

Dimension 5 Financial and macroeconomic integration										
Country	Score	Rank	Category							
Niger	1.000	1	+							
Burkina Faso	0.971	2	+							
Senegal	0.968	3	+							
Guinea-Bissau	0.950	4	+							
Mali	0.950	5	+							
Togo	0.947	6	+							
Côte d'Ivoire	0.941	7	+							
Benin	0.920	8	+							
Cabo Verde	0.437	9	=							
Gambia	0.362	10	-							
Liberia	0.277	11	-							
Ghana	0.253	12	-							
Nigeria	0.153	13	-							
Sierra Leone	0.033	14	-							
Guinea	0.000	15	-							
Average	0.611									
*Average/Top 4	0.972									

### **IGAD: Scores and rankings**

Overall classification			Dimension 1 Trade integration			Dimension 2 Regional infrastructure					
Country	Score	Rank	Category	Country	Score	Rank	Category	Country	Score	Rank	Category
Kenya	0.773	1	+	Uganda	0.998	1	+	Djibouti	0.930	1	+
Uganda	0.701	2	+	Kenya	0.978	2	+	South Sudan	0.796	2	+
Djibouti	0.590	3	=	Sudan	0.675	3	=	Kenya	0.729	3	=
Eritrea	0.428	4	=	Eritrea	0.469	4	=	Somalia	0.609	4	=
Ethiopia	0.424	5	=	Djibouti	0.393	5	=	Sudan	0.580	5	=
Sudan	0.270	6	-	Ethiopia	0.277	6	=	Ethiopia	0.577	6	=
South Sudan**			-	Somalia	0.247	7	-	Eritrea	0.444	7	-
Somalia**				South Sudan** 0.000		Uganda	0.378	8	-		
Average	0.531			Average	Average 0.505		Average	0.630			
*Average/Top 4	0.634			*Average/Top 4	0.780			*Average/Top 4	0.766		

### **SADC: Scores and rankings**

Overall cla	Overall classification			Dimension 1 Trade integration				Dimension 2 Regional infrastructure			
Country	Score	Rank	Category	Country	Score	Rank	Category	Country	Score	Rank	Category
South Africa	0.741	1	+	South Africa	1.000	1	+	Botswana	0.820	1	+
Botswana	0.559	2	+	Zambia	0.628	2	+	Seychelles	0.668	2	+
Namibia	0.555	3	+	Namibia	0.620	3	+	Namibia	0.666	3	+
Zambia	0.523	4	+	Botswana	0.611	4	+	South Africa	0.591	4	+
Swaziland	0.520	5	+	Swaziland	0.549	5	=	Swaziland	0.584	5	+
Zimbabwe	0.488	6	=	Lesotho	0.541	6	=	Mozambique	0.503	6	=
Mozambique	0.483	7	=	Mozambique	0.530	7	=	Malawi	0.466	7	=
Seychelles	0.481	8	=	Mauritius	0.513	8	=	Zimbabwe	0.456	8	=
Mauritius	0.466	9	=	Madagascar	0.499	9	_	Zambia	0.444	10	=
Lesotho	0.386	10	-	Malawi	0.491	10	=	Mauritius	0.444	9	=
Malawi	0.367	11	-	Dem. Rep. of the Congo	0.489	11	=	Angola	0.435	11	=
United Rep. of Tanzania	0.364	12	-	Angola	0.488	12	=	United Rep. of Tanzania	0.389	12	-
Madagascar	0.343	13	-	United Rep. of Tanzania	0.329	13	-	Madagascar	0.388	13	-
Dem. Rep. of the Congo	0.302	14	-	Seychelles	0.246	14	-	Dem. Rep. of the Congo	0.380	14	-
Angola	0.281	15	-	Zimbabwe	0.084	15	-	Lesotho	0.292	15	-
Average	0.457			Average	0.508			Average	0.502		
*Average/Top 4	0.595			*Average/Top 4	0.715			*Average/Top 4	0.686		

### **UMA: Scores and rankings**

Overall c	Overall classification			Dimension 1 Trade integration			Dimension 2 Regional infrastructure				
Country	Score	Rank	Category	Country	Score	Rank	Category	Country	Score	Rank	Category
Morocco	0.577	1	+	Tunisia	0.973	1	+	Morocco	0.669	1	+
Tunisia	0.542	2	_	Morocco	0.795	2	=	Libya	0.667	2	+
Algeria	0.477	3	=	Libya	0.748	3	=	Mauritania	0.434	3	=
Libya	0.389	4	=	Algeria	0.638	4	=	Algeria	0.390	4	=
Mauritania	0.310	5	-	Mauritania	0.000	5	-	Tunisia	0.295	5	-
Average	0.459			Average 0.631		Average	0.491				
*Average/Top 2	0.559			*Average/Top 2	0.884			*Average/Top 2	0.668		

<sup>\*</sup>Average of top performing countries within REC (with a 95% confidence interval) \*\* Indicates full data not available for calculation Scores are calculated on a score of 0 (low) to 1 (high).

- Country is a high performer score is higher than average of countries
- Country is an average performer score is within the average of countries
- **■** Country is a low performer –score is below the average of countries

Dimension 3 Productive integration										
Country Score Rank Category										
Kenya	0.977	1	+							
Uganda	0.934	2	+							
Djibouti	0.925	3	+							
Ethiopia	0.400	4	=							
Eritrea	0.200	5	=							
Sudan	0.038	6	-							
South Sudan	0.000	7	-							
Somalia	0.000	7	-							
Average 0.434										
*Average/Top 4 0.809										

Dimension 4 Free movement of people											
Country Score Rank Category											
Uganda	0.843	1	+								
Kenya	0.786	2	+								
Eritrea	0.729	3	+								
Ethiopia	0.700	4	+								
Djibouti	0.200	5	-								
Somalia	0.200	5	-								
South Sudan	0.114	7	-								
Sudan	0.057	8	-								
Average	0.454										
*Average/Top 4	0.764										

Dimension 5 Financial and macroeconomic integration										
Country Score Rank Category										
Djibouti	0.500	1	+							
Kenya	0.396	2	+							
Uganda	0.351	3	=							
Eritrea	0.299	4	=							
Ethiopia	0.168	5	=							
South Sudan	0.050	6	-							
Sudan	0.000	7	-							
Somalia**	0.000									
Average	0.221									
*Average/Top 4	0.386									

Dimension 3 Productive integration									
Country	Score	Rank	Category						
Zimbabwe	0.738	1	+						
South Africa	0.551	2	+						
Zambia	0.533	3	+						
Mozambique	0.465	4	+						
Swaziland	0.394	5	=						
United Rep. of Tanzania	0.383	6	=						
Dem. Rep. of the Congo	0.350	7	=						
Madagascar	0.301	8	=						
Seychelles	0.291	9	=						
Malawi	0.280	10	=						
Angola	0.268	11	=						
Mauritius	0.257	12	-						
Namibia	0.189	13	-						
Botswana	0.175	14	-						
Lesotho	0.073	15	-						
Average	0.350								
*Average/Top 4	0.572								

Dimen Productive i		tion		Dimen Free moveme		eople	
Country	Score	Rank	Category	Country	Score	Rank	Category
Zimbabwe	0.738	1	+	Swaziland	0.700	1	+
South Africa	0.551	2	+	Seychelles	0.700	1	+
Zambia	0.533	3	+	Zambia	0.693	3	+
Mozambique	0.465	4	+	Zimbabwe	0.664	5	+
Swaziland	0.394	5	=	Mauritius	0.664	4	+
United Rep. of Tanzania	0.383	6	=	South Africa	0.650	6	+
Dem. Rep. of the Congo	0.350	7	=	Namibia	0.650	6	+
Madagascar	0.301	8	=	Botswana	0.600	8	=
Seychelles	0.291	9	=	Lesotho	0.600	8	=
Malawi	0.280	10	=	Malawi	0.600	8	=
Angola	0.268	11	=	Mozambique	0.586	11	=
Mauritius	0.257	12	-	United Rep. of Tanzania	0.521	12	=
Namibia	0.189	13	-	Madagascar	0.200	13	-
Botswana	0.175	14	-	Dem. Rep. of the Congo	0.079	14	-
Lesotho	0.073	15	-	Angola	0.050	15	-
Average	0.350			Average	0.530		
*Average/Top 4	0.572			*Average/Top 4	0.689		

	Dimension 5 Financial and macroeconomic integration										
Country	Score	Rank	Category								
South Africa	0.915	1	+								
Namibia	0.650	2	+								
Botswana	0.589	3	+								
Seychelles	0.500	4	=								
Zimbabwe	0.498	5	=								
Mauritius	0.451	6	=								
Lesotho	0.421	7	=								
Swaziland	0.372	8	=								
Mozambique	0.333	9	=								
Madagascar	0.324	10	=								
Zambia	0.320	11	=								
Dem. Rep. of the Congo	0.214	12	-								
United Rep. of Tanzania	0.197	13	-								
Angola	0.166	14	-								
Malawi	0.000	15	-								
Average	0.397										
*Average/Top 4	0.663										

Dimension 3 Productive integration											
Country Score Rank Category											
Tunisia	0.667	1	+								
Morocco	0.586	2	=								
Libya	0.430	3	=								
Algeria	0.411	4	=								
Mauritania	0.312	5	-								
Average 0.481											
*Average/Top 2	*Average/Top 2 0.626										

Dimension 4 Free movement of people						
Country	Score	Rank	Category			
Algeria	0.800	1	+			
Mauritania	0.667	2	=			
Tunisia	0.567	3	=			
Morocco	0.333	4	=			
Libya	0.100	5	-			
Average	0.493					
*Average/Top 2	0.733					

Dimension 5 Financial and macroeconomic integration						
Country	Score	Rank	Category			
Morocco	0.500	1	+			
Tunisia	0.209	2	=			
Algeria	0.147	3	=			
Mauritania	0.138	4	=			
Libya	0.000	5	-			
Average	0.199					
*Average/Top 2	0.355					

Table 1. Africa Regional Integration Index (ARII) Components and Indicators

Composite index / (indicator by component)	Indicator			
I. Composite indicator Trade integration (4)		Level of customs duties on imports	This indicator measures the weighted average of tariffs actually applied as a percentage of the total of intra-regional imports for all the products identified using the six-digit harmonised system (HS-6).	
		Share of intra-regional goods exports (% GDP)	This indicator measures the value of intra-regional goods exports as a percentage of the country's GDP. The indicator, expressed in relation to GDP, can be calculated per year per country.	
		Share of intra-regional goods imports (% GDP)	This indicator is defined as the value of intra-regional imports as a percentage of GDP. It can be calculated per year per country and is expressed in relation to GDP.	
		Share of total intra-regional goods trade (% total intra-REC trade)	This indicator is defined as the country's intra-regional trade as a proportion of the total intra-regional trade of the REC. It can be calculated per year per country and is expressed in relation to GDP.	
II. Composite index Regional infrastructure (4)		Infrastructure development index	This indicator is based on four main categories: Transport; electricity; ICT; water and sanitation. These categories are divided into 9 indicators having a direct or indirect impact on productivity or economic growth. The indicator is calculated by African Development Bank	
		Proportion of intra-regional flights	The number of intra-regional flights arriving or departing as a percentage of the the total international flights (departures and arrivals) of the country.	
		Total regional electricity trade (net) per capita (absolute value)	This indicator measures the annual volume of regional electricity imports minus the annual volume of regional electricity exports, as an absolute value.	
	II.d	Average cost of roaming	Average cost of mobile communications, using the main operators in the country, from the country to other countries of the REC, per minute, in dollars.	
III. Composite productive integration index (3)		Share of intra-regional intermediate goods exports (% total intra-regional goods exports)	Percentage of intra-regional exports of intermediate (semi-finished) goods compared to the total of intra-regional goods exports.	
		Share of intra-regional intermediate goods imports (% total intra-regional goods imports)	Percentage of intra-regional imports of intermediate (semi-finished) goods compared to total intra-regional goods imports.	
		Merchandise trade complementarity index	This indicator is calculated by UNCTAD. It measures the total in absolute value of the difference between the share of imports and the share of exports compared to other member states of a REC.	
IV. Composite index of free movement of people (4)		Ratification by the country of REC protocol on free movement of people	This qualitative indicator measures whether or not the country has ratified the protocol on the free movement of people in the REC of which it is a member. Ratification: Yes $= 1$ ; No $= 0$	
		Proportion of REC member countries whose nationals do not require a visa for entry	Number of other member countries whose citizens do not require a visa, as a percentage of the total number minus one of member countries of the REC.	
		Proportion of REC member countries whose nationals may obtain a visa on arrival	Number of other countries whose nationals may obtain a visa at the country's airport, as a percentage of the total number minus one of member countries.	
V. Composite index of financial integration and convergence of macroeconomic policies (2)		Regional convertibility of national currencies	This indicator measures the number of countries of the region with which the country shares a common currency or with which its currency is convertible.	
		Inflation rate differential (based on Harmonised Consumer Price Index (HCPI))	The inflation rate differential is the difference between the inflation rate of the country and the annual regional average, on the basis of the harmonised consumer price index.	