

Ports in Africa

November 2017

1. The African Seaborne Trade Landscape

This fact sheet covers African countries from Senegal to Somalia along the coast. According to African Ports Evolution (2016) over 90% of Africa's imports and exports are conducted via the sea. The high frequency of this mode of transport calls for an increasing need for innovation and development in the field of maritime. Africa covers about 6% of the earth's total surface. Seventy percent of African countries are coastal and there are over a hundred port facilities in the region. African seaborne trade makes up 7.5% of loaded trade and 4.8% of unloaded trade (UNCTAD, 2016).

SEABORNE TRADE (MILLION TONS) 2015								
	LOADED				UNLOADED			
	Crude oil	Other oil products	Dry cargo	Total Loaded	Crude oil	Other oil products	Dry cargo	Total Unloaded
Africa	295	58	403	756	39	70	374	483
Total	1771	1176	7101	10048	1916	1185	6932	10033
African %	16.66	4.93	5.68	7.52	2.04	5.91	5.40	4.81

Source: UNCTAD, 2016

The map below shows the geographical distribution of the scale of 76,000 recorded port calls in Africa. Africa's corner points Egypt, Morocco, and South Africa have been recorded as the busiest parts of the continent for maritime trade. This map of Marine Traffic data shows that there is considerable vessel traffic in the Gulf of Guinea. Luanda (Angola), is singled out as the second busiest port in the data sample, after Tangier (Morocco) with almost 4,000 port calls (2,105 dry cargo/passenger ships, 1,236 tankers, 507 container ships and 147 bulk carriers). Other leading ports in the data sample show significant levels of traffic in Durban (South Africa), Lagos (Nigeria); and Port Said, Alexandria and Suez, Egypt. Many African ports compete for cargo from neighbouring landlocked countries. However, inland transport is expensive, and inefficient border-crossing procedures combined with roadblocks make it difficult to transport cargo. One way to improve shipping connectivity in countries in Western Africa for example would be by improving intermodal inland transport and trade connectivity (UNCTAD, 2017).

Figure 1. Scale of vessel port calls in Africa, 2015



This report will look into the key strength of export and import capability of the top ports in Africa, based on their competitive advantage. A list of the countries covered and most of their ports are shown below. The table covers African countries from Senegal to Somalia along the coast as well as the islands of Mauritius and Madagascar.

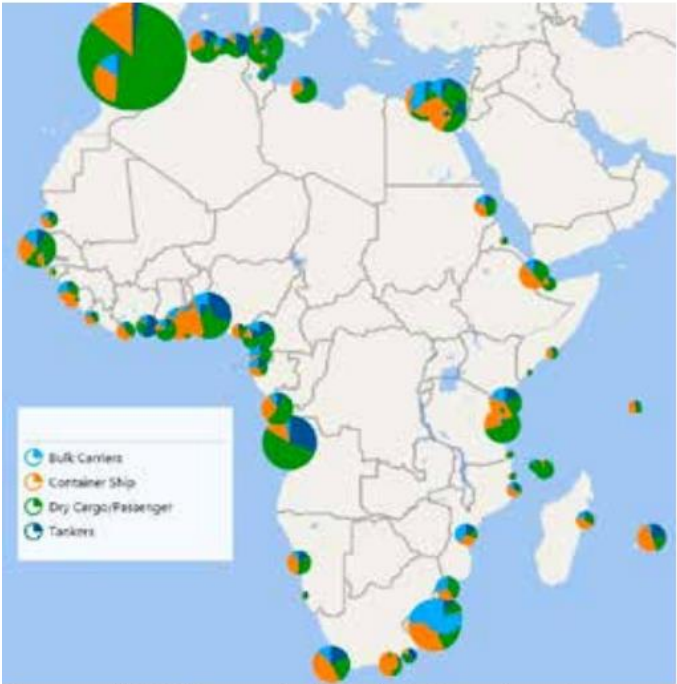
LIST OF AFRICAN PORTS ALONG THE COAST			
COUNTRY	PORTS	COUNTRY	PORT
Senegal	Container: Dakar (medium seaport) Sea ports: Kaolack Lyndiane M'Bao Oil Terminal Ziguinchor	Cameroon	Container: Douala (medium seaport) Sea ports: Limboh Terminal Victoria Tiko Kribi Ebome Marine Terminal
The Gambia	River port: Banjul	Equatorial Guinea	Container: Bata (small pier) Sea ports: Benito Puerto Iradier Cogo
Guinea Bissau	Container: Bissau (small seaport) Sea ports: Bolama	Gabon	Container: Port Gentil (small seaport) Sea ports: Cape Lopez Owendo Oguendjo Terminal Tchatamba Marine Terminal Gamba Nyanga Lucina Terminal M'Bya Terminal
Guinea	Container: Conakry (small seaport) Sea ports: Port Kamsar	Republic of Congo	Container: Pointe Noire (small harbour) Sea ports: Yombo Djeno Matasi
Sierra Leone	Container: Freetown (small pier or wharf) Sea ports: Pepel Sherbro Island	Democratic Republic of Congo	Container: Matadi Sea ports: Boma Banana
Liberia	Container: Monrovia (small seaport) Sea ports: Marshall Buchanan	Angola	Container: Cabinda (small pier or wharf) Sea ports: Port Luanda? Port Saco (iron ore bulk port) Takula Terminal Malongo Terminal Futila Terminal Soyo Essungo Marine Terminal Lombo Marine Terminal Palanca Terminal Kiame Marine Terminal Kiabo Marine Terminal Girassol Terminal Ambriz
Cote d'Ivoire	Container: Abidjan (medium seaport) San Pedro Sea ports: Espoir Terminal	Namibia	Container: Walvis Bay (small seaport) Luderitz (small harbour)

Ghana	<u>Container:</u> Tema (medium seaport) Takoradi <u>Sea ports:</u> Saltpond	South Africa	<u>Container:</u> Cape Town (medium seaport) Port Elizabeth (small harbour) Durban (large seaport) <u>Sea ports:</u> Port Nolloth East London Richards Bay Saldanha bay Mossel bay Port of Ngqura (Coega)
Togo	<u>Container:</u> Lome (small seaport) <u>Sea ports:</u> Kpeme	Mozambique	<u>Container:</u> Pemba (small pier or wharf) Nacala (small seaport) Quelimane (small pier or wharf) Beira Maputo (medium seaport) <u>Sea ports:</u> Inhambane Chinde Macuse Pebane Mozambique
Benin	<u>Container:</u> Cotonou (medium seaport) <u>Sea ports:</u> Seme Terminal	Tanzania	<u>Container:</u> Tanga (small seaport) Dar es Salaam (large seaport) <u>Sea ports:</u> Pangani Kilwa Masoko Lindi Mtwara Bagamoyo (to be built online SEZ)
Nigeria	<u>Container:</u> Tincan port Lagos port Onne port <u>Sea ports:</u> Delta Calabar Rivers port complex	Kenya	<u>Container:</u> Mombassa (medium seaport) <u>Sea ports:</u> Malindi Lamu
Mauritius	Port Louis	Somalia	<u>Container:</u> Berbera (medium seaport) <u>Sea ports:</u> Merca Dante Kismayu
		Madagascar	Toamasina Autonomous Port Port of Tamatave Port of Ehoala

Source: SeaRates, 2017; Various Sources, 2017

The figure below shows the number of AIS data recordings received for African countries. The AIS data represent 73 ports located in 37 countries (the Democratic Republic of the Congo is not included). The AIS data may not have systematically recorded every vessel's port call; therefore, these figures are a minimum indication.

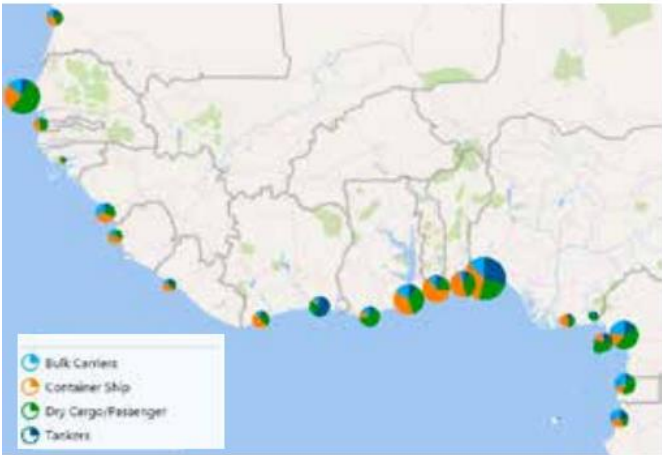
Figure 2. Vessel port calls in Africa, 2015



Source: UNCTAD secretariat calculations, based on raw observational data provided by MarineTraffic.

The figure below illustrates the specialty of the ports in West Africa. For instance, Abidjan (Côte d’Ivoire) has a large share of tankers, while Lomé (Togo) has a large share of container ships and Owendo (Gabon), a fairly even split of different vessel types. Using the AIS data to identify ports with similar vessel characteristics makes it possible to compare a sample of similar ports at the same time but different ports have different strengths and weaknesses.

Figure 3. Vessel port calls in West Africa, 2015



Source: UNCTAD secretariat calculations, based on raw observational data provided by MarineTraffic.

2. An Assessment of the Major Ports

According to the AIS data, in the figure above, the top ports in terms of vessel calls (excluding northern countries) were Luanda (Angola), Durban (South Africa) and Lagos (Nigeria). This report includes Cape

Town (South Africa), Dar es Salaam (Republic of Tanzania) and Dakar (Senegal) to the top 6 selection where a detailed analysis of each port will be shown.

CHARACTERISTICS OF MAJOR SOUTHERN AFRICAN PORTS, 2016						
	Luanda	Durban	Lagos	Cape Town	Dar es Salaam	Dakar
Harbor Size:	Small	Large	Medium	Medium	Medium	Medium
Shelter:	Excellent	Good	Good	Good	Good	Good
Maximum Vessel Size:	Over 500 feet in length	Over 500 feet in length	Over 500 feet in length	Over 500 feet in length	Over 500 feet in length	Over 500 feet in length
Harbor Type:	Coastal Natural	Coastal Breakwater	Natural river	Coastal Breakwater	Coastal Natural	Coastal Breakwater
Turning Area:	Yes	Yes		Yes	Yes	
Good Holding Ground:	Yes	Yes		Yes	Yes	Yes
Ship Repairs:	Limited	Moderate	Limited	Major	Limited	Major
Marine Railroad Size:	Medium	Large	Medium	Small	Small	Medium
Degauss:	-				-	-
Drydock Size:	Small	Large	Medium	Large		Medium
Garbage Disposal:	Yes	Yes		Yes	Yes	Yes
Dirty Ballast:	No	Yes		No	No	Yes
Channel:	76 feet - OVER 23.2m - OVER	36 - 40 feet 11 - 12.2 meters		41 - 45 feet 12.5 - 13.7 meters	31 - 35 feet 9.4 - 10 meters	31 - 35 feet 9.4 - 10 meters
Cargo Pier:	31 - 35 feet 9.4 - 10 meters	26 - 30 feet 7.1 - 9.1 meters	7.1m - 9.1m	31 - 35 feet 9.4 - 10 meters	31 - 35 feet 9.4 - 10 meters	21 - 25 feet 6.4 - 7.6 meters
Mean Tide:	4 feet	1 foot		1 foot	3 feet	2 feet
Anchorage:	76 feet - OVER 23.2m - OVER	71 - 75 feet 21.6 - 22.9 meters	12.5m - 13.7m	36 - 40 feet 11 - 12.2 meters	66 - 75 feet 20.1 - 21.3 meters	46 - 50 feet 14 - 15.2 meters
Oil Terminal:	31 - 35 feet 9.4 - 10 meters	31 - 35 feet 9.4 - 10 meters	6.4m - 7.6m	31 - 35 feet 9.4 - 10 meters	31 - 35 feet 9.4 - 10 meters	26 - 30 feet 7.1 - 9.1 meters

Source: Searates, 2017

Competitiveness Rankings of African Ports

UNCTAD container traffic throughput:

The table below gives the top countries (from Senegal to Somalia) in terms of container traffic according to UNCTAD.

RANK	COUNTRY	2016 TEUs (TWENTY FOOT EQUIVALENT)	MAIN CONTAINER PORTS
1	South Africa	4355320	Durban [2.7m TEU's (2015)] Cape Town [888976 TEU (2014)]
2	Nigeria	1335470	Lagos [1.5m TEU's (2015)]
3	Kenya	1091000	Mombassa [894000 TEU (2013)]
4	Ghana	925964	Takoradi Tema
5	Côte d'Ivoire	705000	Abidjan
6	Tanzania	648100	Dar es Salaam
7	Congo	550000	Matadi

8	Mauritius	511000	Port Louis
9	Senegal	496800	Dakar
10	Angola	446000	Luanda [913000 TEU]

Source: UNCTAD, 2017

LSCI index:

The position of countries within global container shipping networks is reflected in the UNCTAD liner shipping connectivity index. The LSCI includes the following five components: (a) the number of ships; (b) the total container-carrying capacity of those ships; (c) the maximum vessel size; (d) the number of services; and (e) the number of companies that deploy container ships on services from and to a country's ports. In May 2016, the best connected countries were Morocco, Egypt and South Africa in Africa. The table below gives the rankings in descending order according to 2017 figures.

LINER SHIPPING CONNECTIVITY INDEX, 2015-2017			
YEAR	2015	2016	2017
South Africa	41.41	35.45	37.35
Mauritius	29.88	31.99	32.01
Congo	19.55	26.45	25.23
Angola	19.57	26.83	24.58
Senegal	12.19	16.27	22.7
Nigeria	21.44	21.3	19.97
Côte d'Ivoire	19.85	19.69	17.83
Gabon	8.49	8.68	16.68
Ghana	21.85	18.73	16.34
Namibia	18.45	22.8	15.35
Kenya	11.34	12.31	14.9
Tanzania	10.62	11.95	12.34
Somalia	5.43	8.14	11.61
Guinea	9.01	8.39	10.33
Madagascar	11.37	16.44	10.22
Equatorial Guinea	9.23	3.47	9.84
Seychelles	8.01	8.46	9.36
Mozambique	10.91	11.94	9.31
Sierra Leone	8.3	7.87	8.29
Guinea-Bissau	3.97	5.36	7.53
Gambia	8.21	6.07	7.27
Dem. Rep. of the Congo	4.33	4.62	5.18

(MAXIMUM 2004=100)
Source: UNCTAD, 2017

Cost of doing business:

The trading across borders distance to frontier (DTF) rankings below show Mauritius to be the most competitive African country with favourable times and costs of trading. In this ranking, the World Bank records the time and cost associated with the logistical process of exporting and importing goods. Doing Business measures the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods.

WORLD BANK TRADING ACROSS BORDERS RANKINGS, 2017

Rank	Economy	Trading Across Borders DTF	Trading Across Borders rank	Time to export: Border compliance (hours)	Cost to export: Border compliance (USD)	Time to export: Documentary compliance (hours)	Cost to export: Documentary compliance (USD)	Time to import: Border compliance (hours)	Cost to import: Border compliance (USD)	Time to import: Documentary compliance (hours)	Cost to import: Documentary compliance (USD)
1	Mauritius	79.9	70	38	303	9	128	41	372	9	166
2	Gambia, The	67.81	105	109	381	48	133	87	326	32	152
3	Kenya	67.63	106	21	143	19	191	180	833	60	115
4	Mozambique	67.25	109	66	602	70	220	14	354	24	171
5	Togo	63.66	121	67	163	11	25	168	612	180	252
6	Namibia	61.47	132	120	745	90	348	6	145	3	63
7	Madagascar	60.95	134	70	868	49	117	99	595	58	150
8	Senegal	60.85	135	61	547	26	96	53	702	72	545
9	Benin	60.78	136	78	412	48	80	82	599	59	529
10	Guinea-Bissau	59.6	141	118	585	60	160	84	550	36	205
11	South Africa	58.01	147	100	428	68	170	144	657	36	213
12	Côte d'Ivoire	54.15	155	110	387	120	136	125	456	89	267
13	Somalia	51.6	160	44	495	73	350	85	952	76	300
14	Sierra Leone	48.99	162	55	552	72	227	120	821	137	387
15	Guinea	46.24	165	72	778	139	128	91	909	156	180
16	Gabon	43.94	169	96	1633	60	200	84	1320	120	170
17	Equatorial Guinea	32.05	174	132	760	154	85	240	985	240	70
18	Liberia	27.77	177	193	1113	144	155	217	1013	144	230
19	Angola	25.28	180	192	825	169	240	96	1030	180	460
20	Tanzania	20.21	182	96	1160	96	275	402	1350	240	375
21	Nigeria	19.93	183	135.4	785.7	131.4	250	283.7	1076.8	172.7	564.3
22	Nigeria - Kano	19.93	183	135	786	131	250	284	1077	173	564
23	Nigeria - Lagos	19.93	183	135	786	131	250	284	1077	173	564
24	Congo, Rep.	19.68	184	276	1975	120	165	397	1581	208	310
25	Cameroon	15.99	186	202	983	66	306	271	1407	163	849
26	Congo, Dem. Rep.	1.26	188	515	2223	698	2500	588	3039	216	875

Source: World Bank, 2017

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