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Aviation Infrastructure for Africa Gap Analysis - 2019

Priority Evaluation Items for Airline





- Survey Section C asked States to provide information on aircraft fleet and equipage
- Seventeen States responded to Survey Section C:
 - Benin, Botswana, Cameroon, Cote d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Ethiopia, Egypt, Gabon, Gambia, Mali, Mauritius, Namibia, Niger, Senegal, Sierra Leone, Togo
- ICAO's air transport data was supplemented by the survey results



- Overview: Air Transport in Africa
- Gap Area 1: Connectivity
- Gap Area 2: Market Share of African Airlines
- Gap Area 3: Capacity Utilization of Airlines
- Forecasts



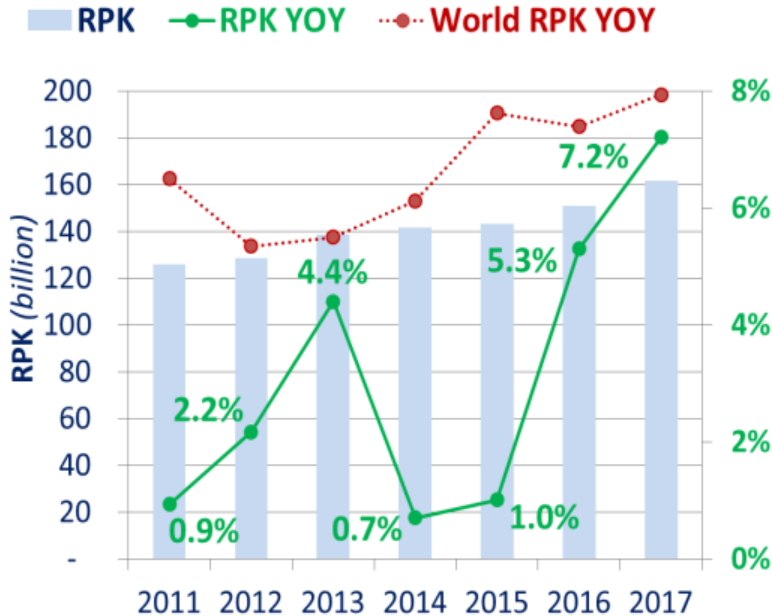
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Overview: Air Transport in Africa

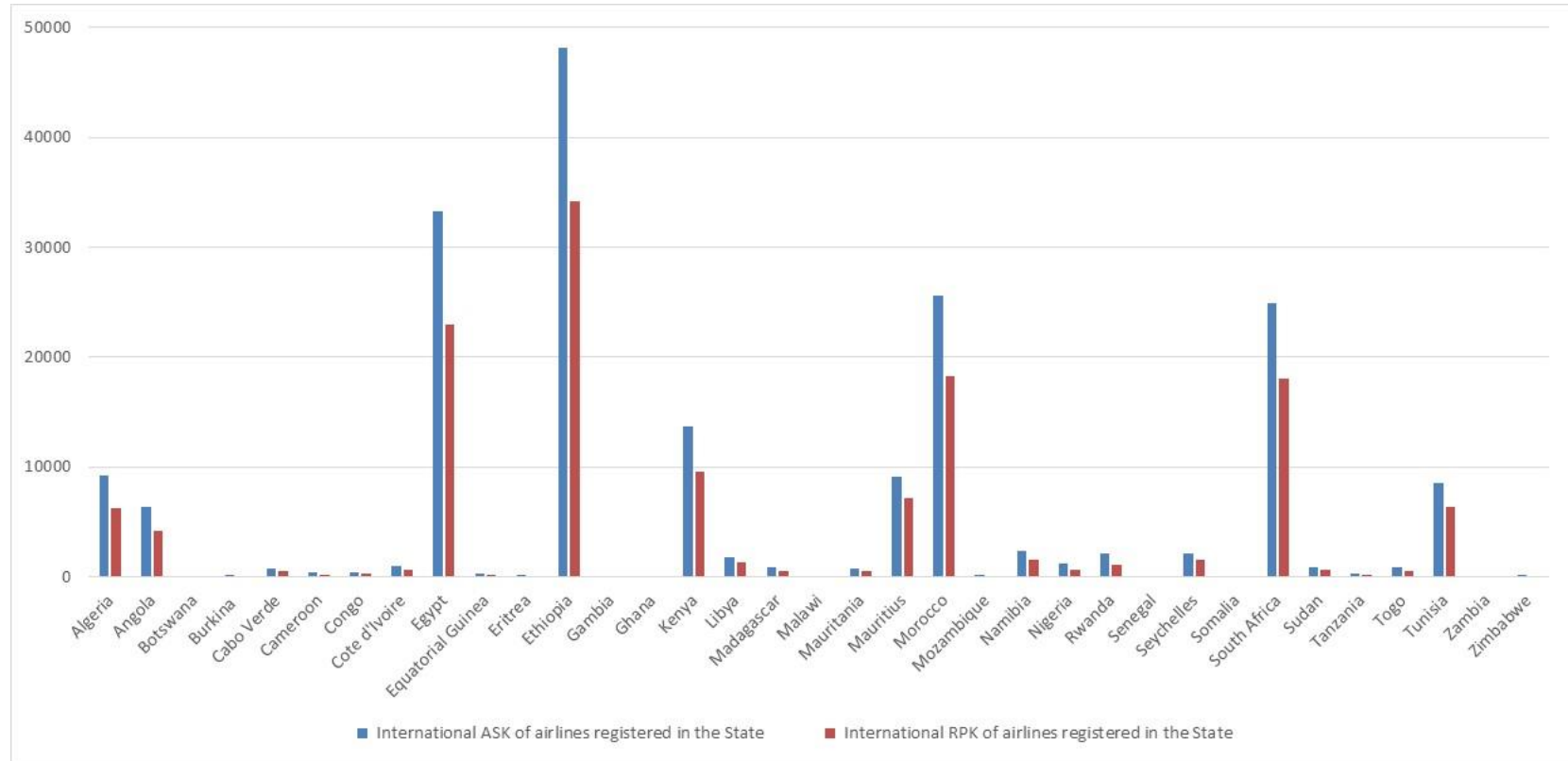


Total passenger traffic of African Airlines

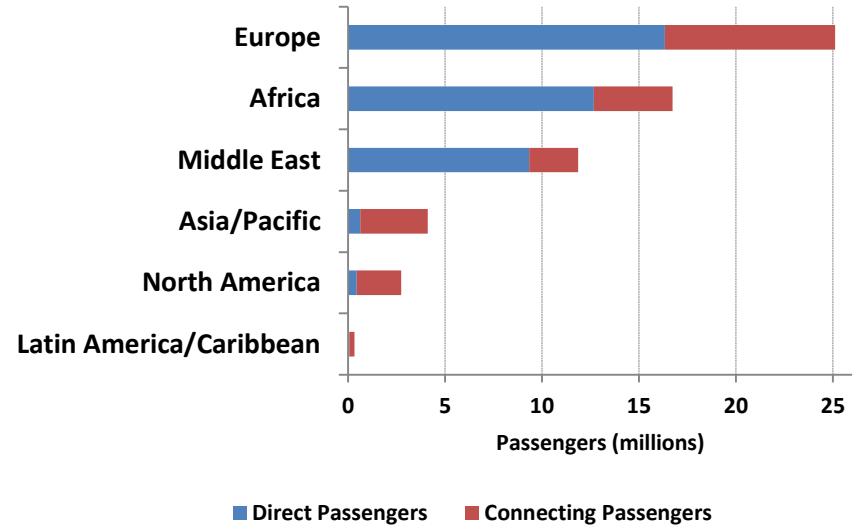
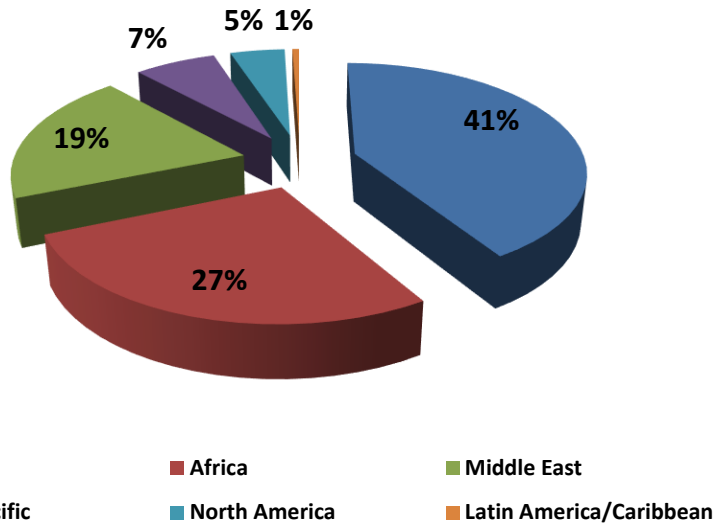




International passenger traffic By African State (Millions, 2017)

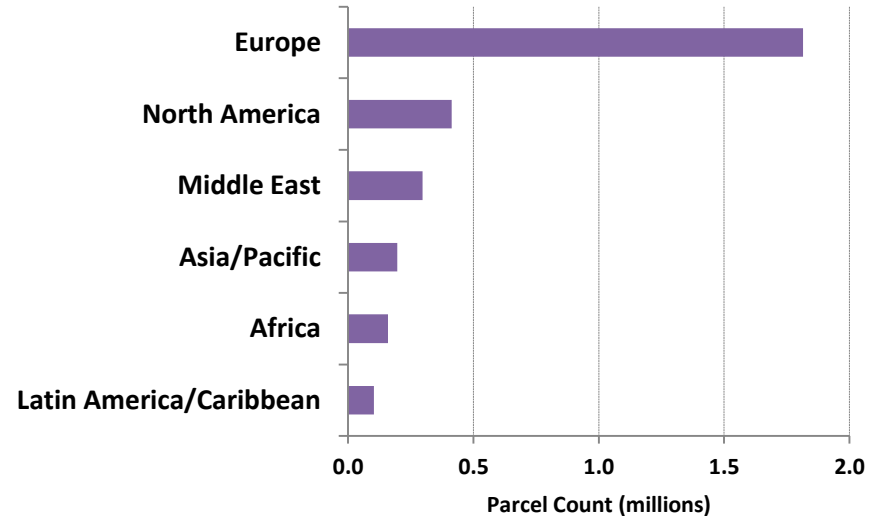
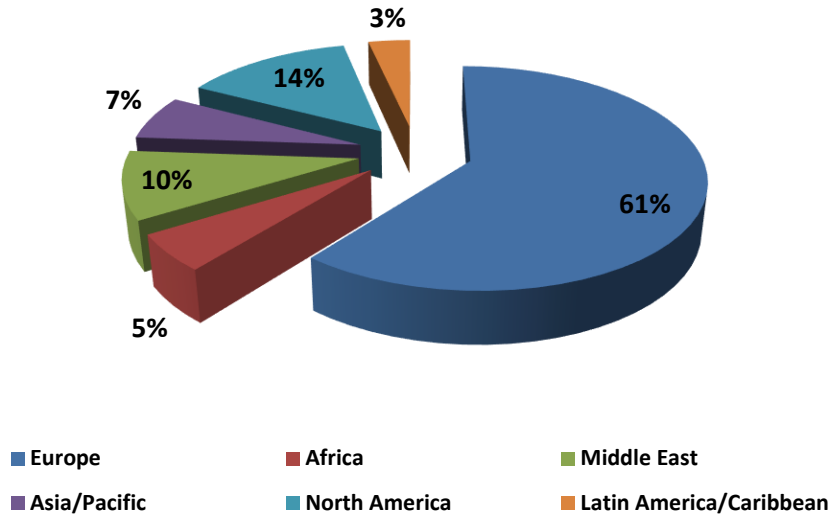


International Traffic Departing from Africa by Destination Region (One Way, 2017)



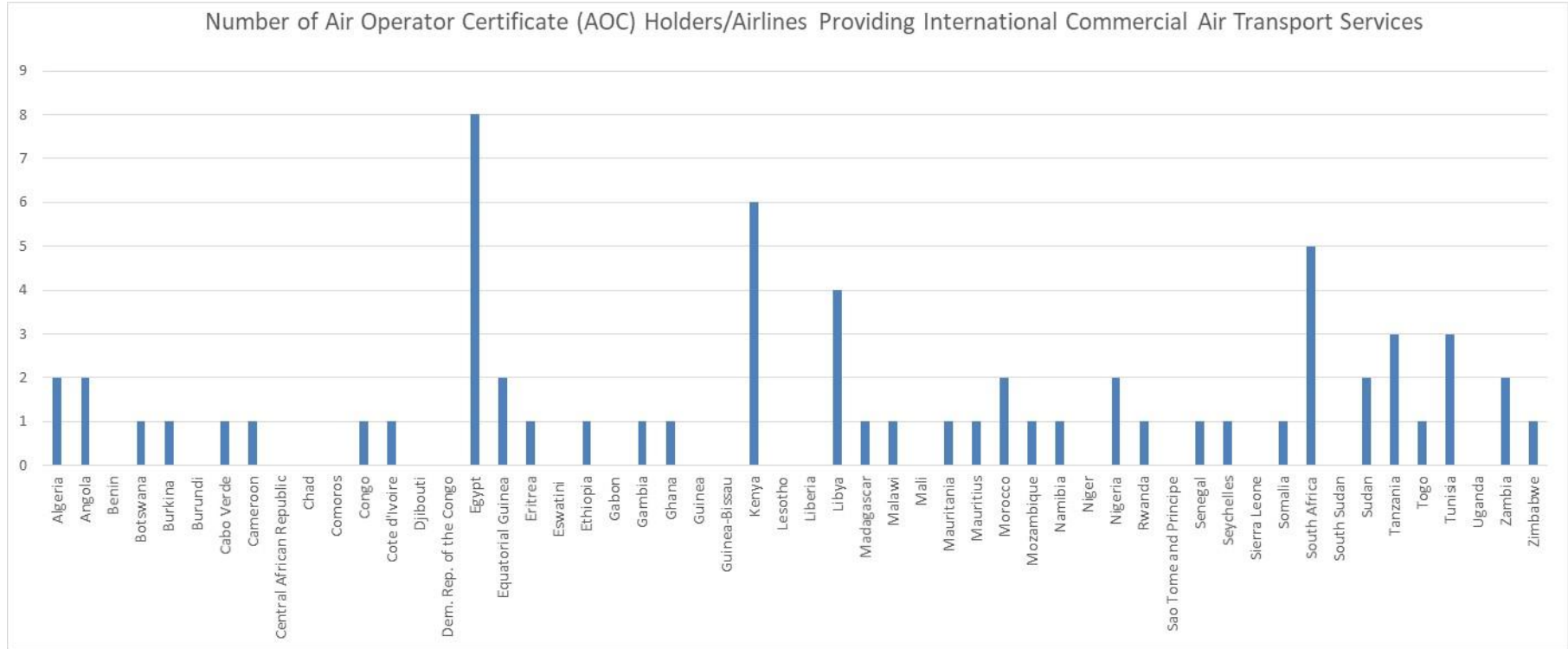
- Total International Passengers Departing from Africa : 61 millions

B2C E-Commerce Parcels Departing from Africa by Destination Regions (One Way, 2016, Carried by Air)



- Total B2C E-Commerce Parcels Departing from Africa by Air : 3 millions

Number of international airlines by State (2017)





- Passenger traffic growth of African carriers has been volatile and consistently lower than the world average growth (slide 5)
- Top 10 States in Africa accounted for the majority of the international passenger traffic carried by African carriers (slide 6)
- Top international destination region from Africa is to Europe (41%), followed by Intra Africa (27%) and to the Middle East (19%) (slide 7)
- Over half of the B2C E-Commerce Parcels from Africa are to Europe (slide 8)
- Currently in Africa, 19 States have no international airlines, 22 States have only 1 international airlines, and 4 States have more than 3 international airlines (slide 9)

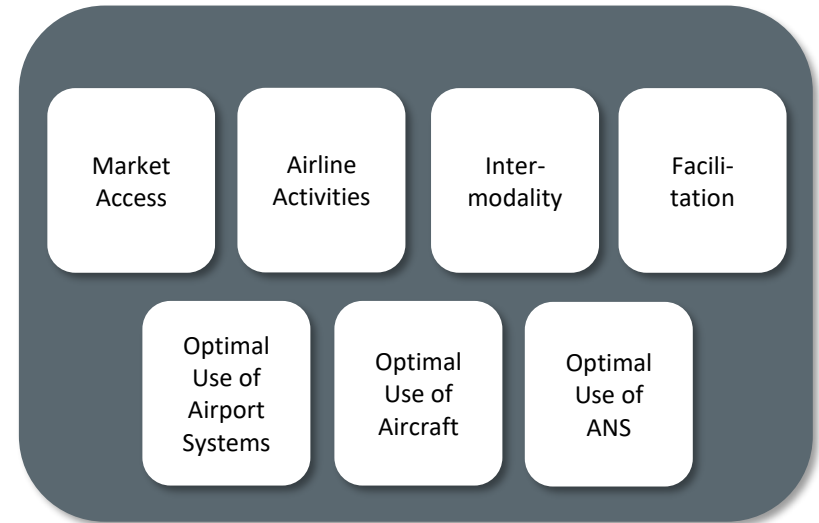


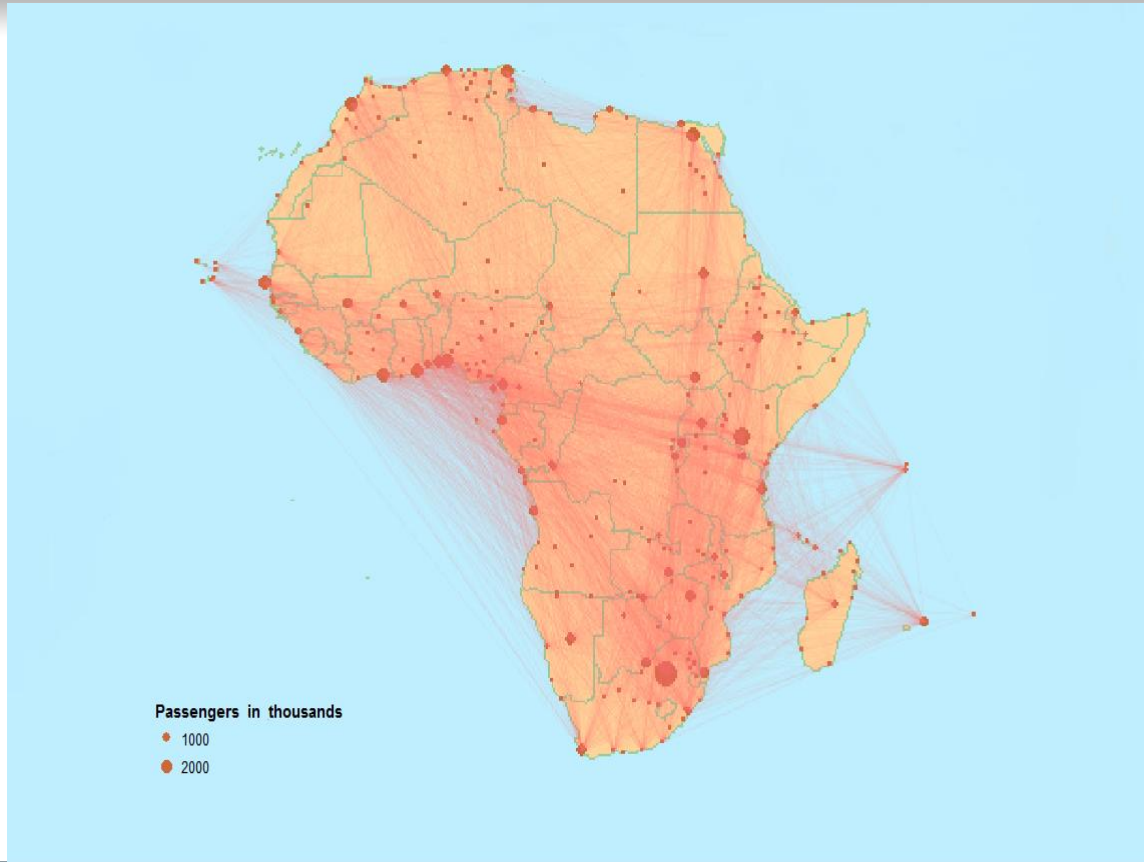
Gap Area 1: Connectivity

Definition of Connectivity in Air Transport

Movement of passengers, mail and cargo involving the **minimum of transit points**

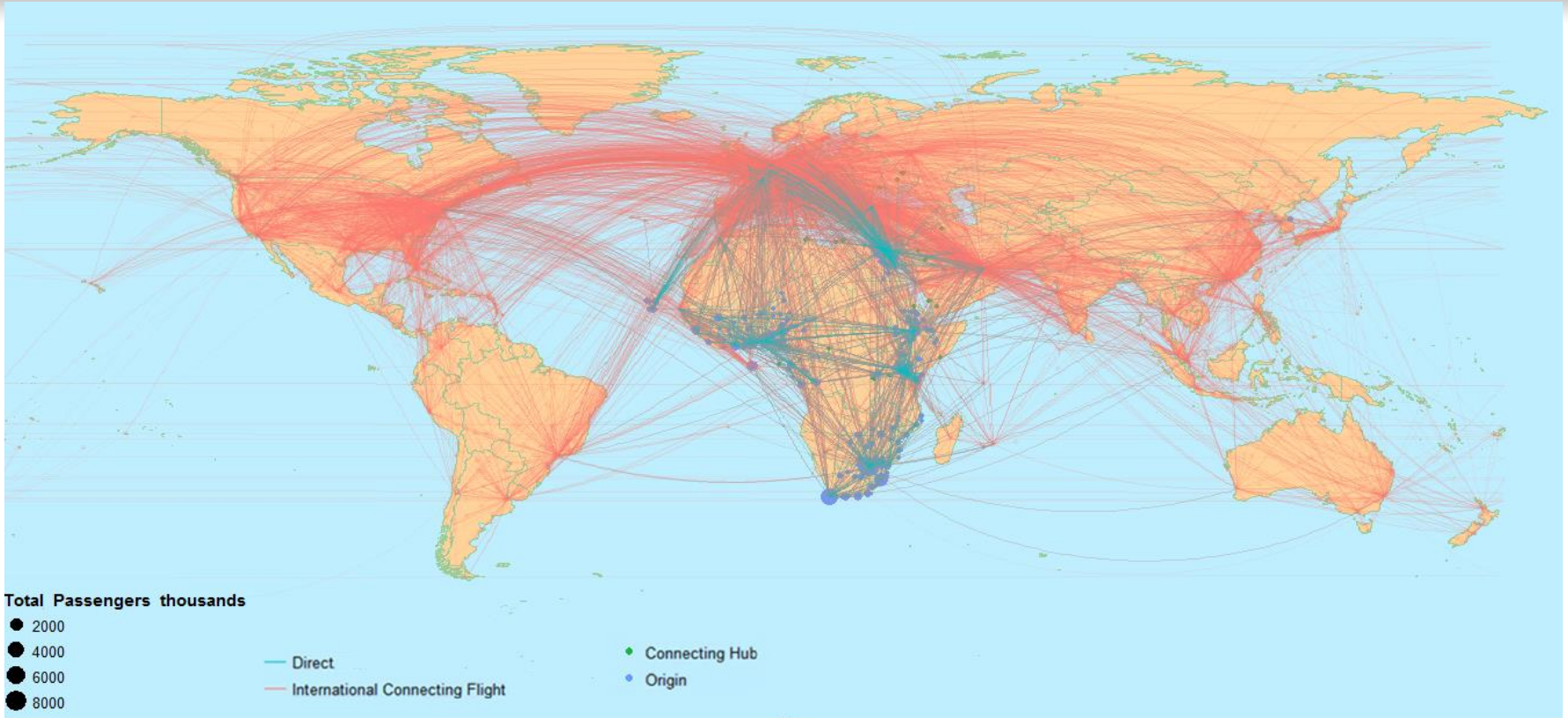
- which makes trip as **short** as possible
- with **optimal** user satisfaction
- at the **minimum** price possible



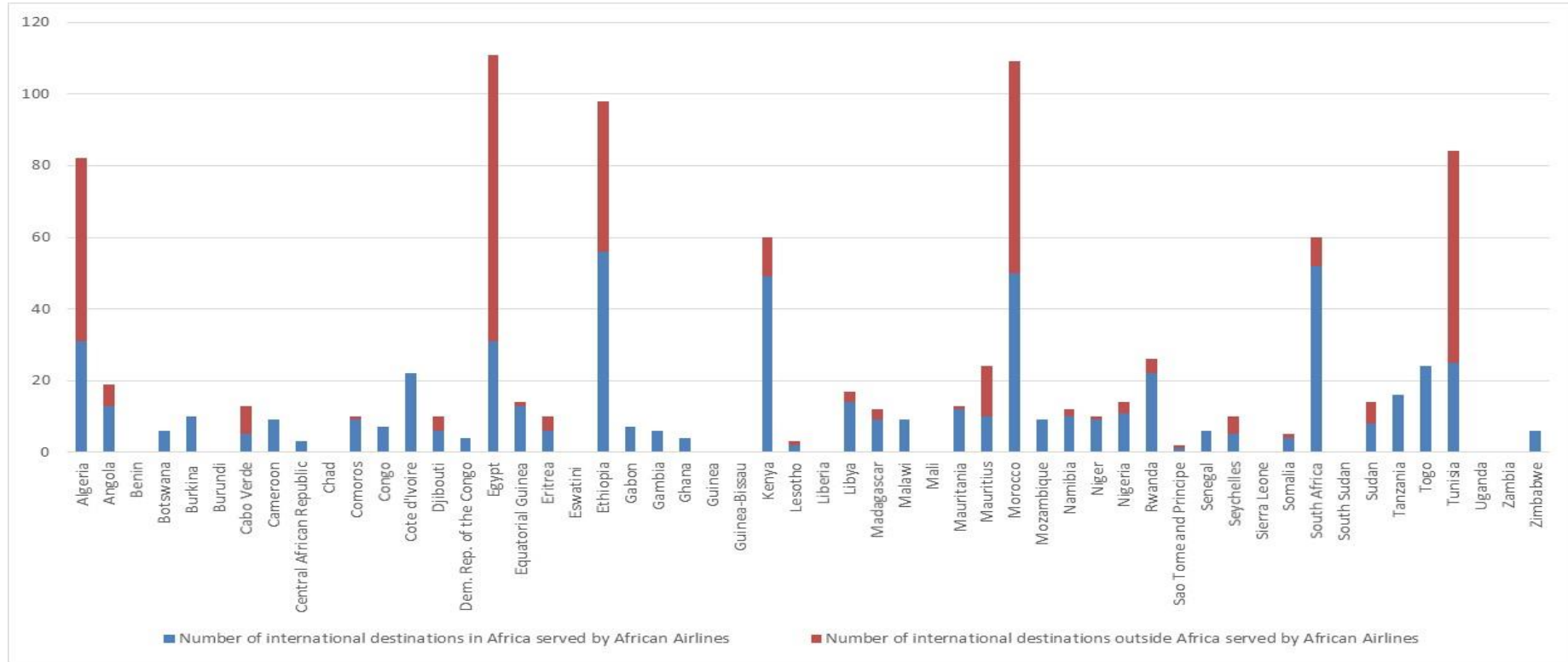




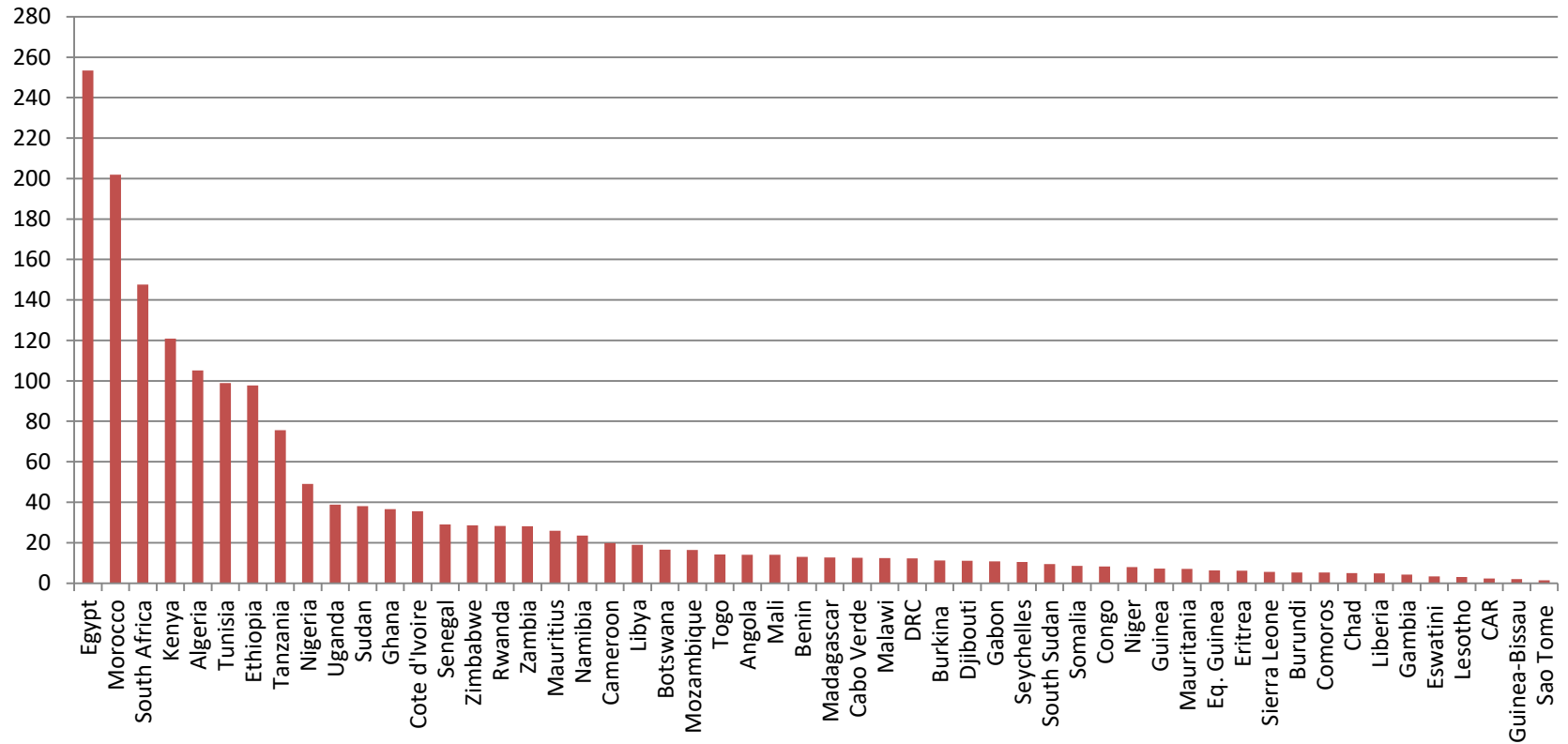
Traffic Originating from States of SAATM 2017



Number of international destinations Served by African Airlines (2018)

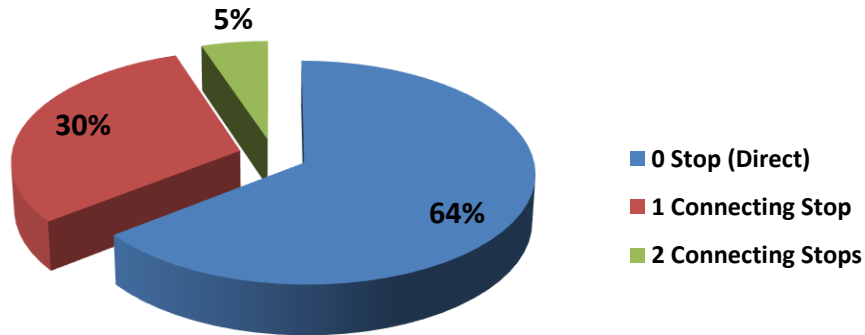


Average daily frequency of intl scheduled services by all airlines (Summer 2018)

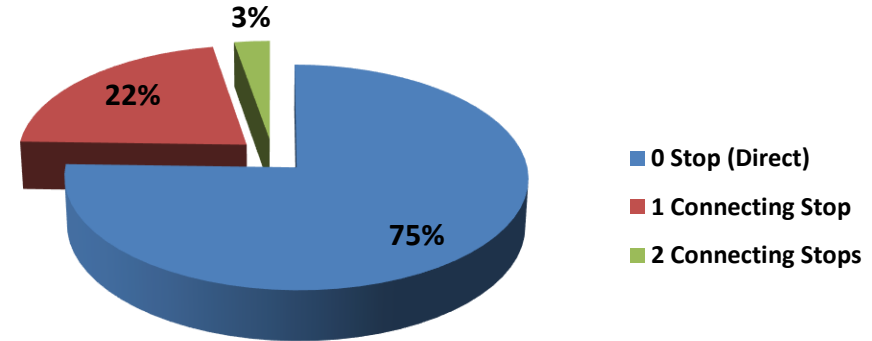


International passenger traffic by number of connections

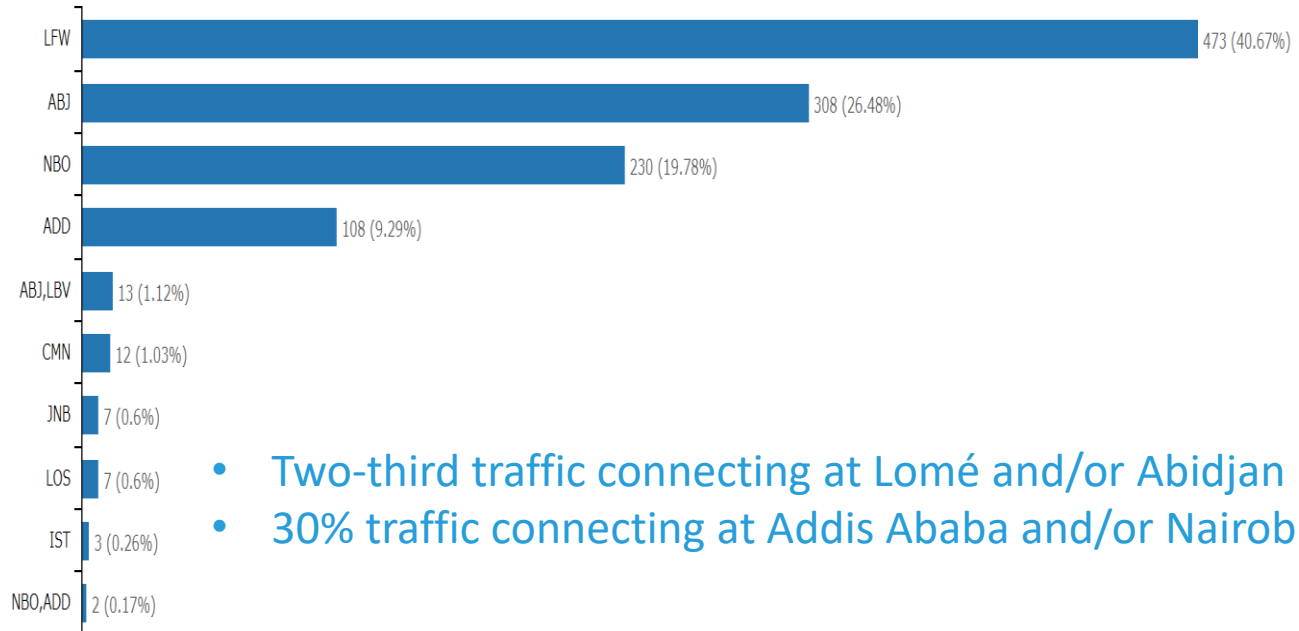
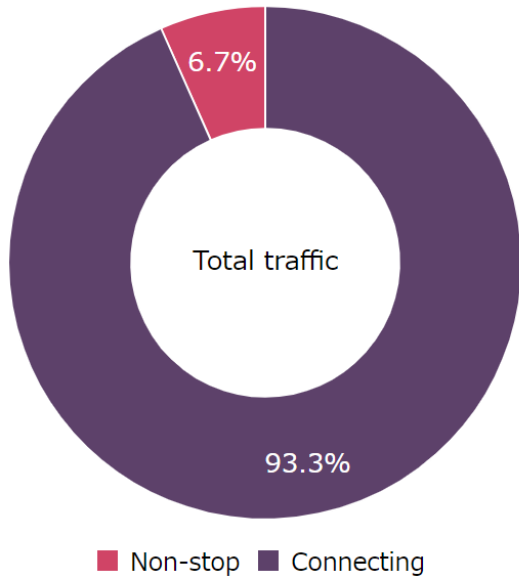
Breakdown of International Traffic Departing from Africa by Connecting Stops (2017)



Breakdown of Intra-Africa Traffic by Connecting Stops (2017)



Traffic from Accra to Kinshasa (2017)



- Two-third traffic connecting at Lomé and/or Abidjan
- 30% traffic connecting at Addis Ababa and/or Nairobi



Top city-pairs with no direct flights

Top international origin and destination city pairs in Africa with no direct flights

City Pair	Total Passengers	Top Connecting Hub	Top Connecting Hub Passengers	Top Connecting hub % of Total Passengers
Harare (Zimbabwe) <> Cape Town (South Africa)	69,628	Johannesburg (JNB)	65,777	94%
Lusaka (Zambia) <> Cape Town (South Africa)	48,463	Johannesburg (JNB)	44,559	92%
Mombasa (Kenya) <> Dar es salaam (United Republic of Tanzania)	45,893	Kilimanjaro (JRO)	20,295	44%
Victoria Falls (Zimbabwe) <> Cape Town (South Africa)	43,946	Johannesburg (JNB)	43,446	99%
Lagos (Nigeria) <> Cape Town (South Africa)	39,065	Johannesburg (JNB)	38,267	98%
Nairobi (Kenya) <> Cape Town (South Africa)	37,426	Johannesburg (JNB)	36,826	98%
Mombasa (Kenya) <> Entebbe (Uganda)	36,491	Nairobi (NBO)	32,853	90%
Saint Denis (Réunion, France) <> Rodrigues Island (Mauritius)	33,675	Port Louis (MRU)	33,675	100%
Livingstone (Zambia) <> Cape Town (South Africa)	31,122	Johannesburg (JNB)	31,109	100%
Dakar (Senegal) <> Abuja (Nigeria)	24,340	Lagos (LOS)	14,696	60%



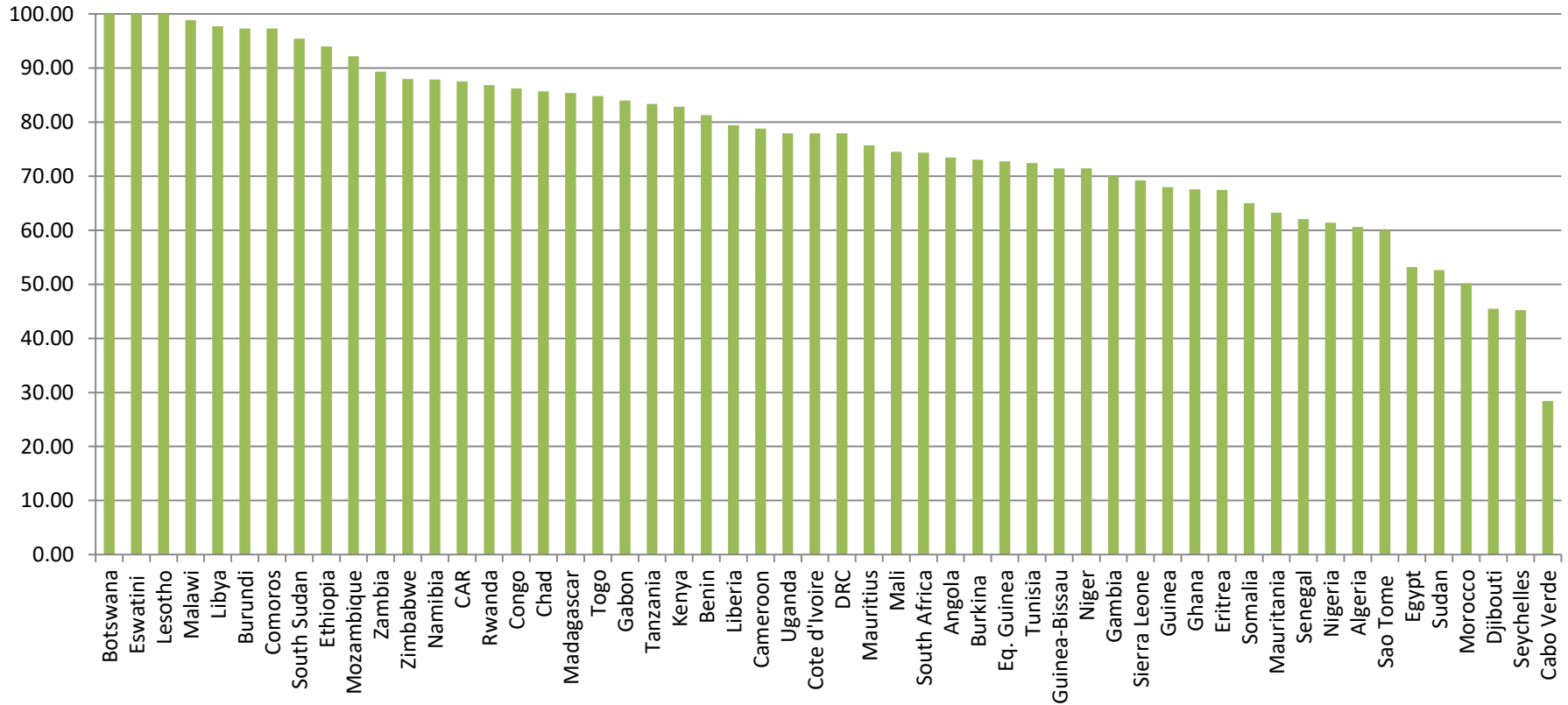
- Direct traffic from SAATM States are mainly to Europe and intra-Africa while traffic from SAATM to other regions are carried mainly through connecting flights (slide 14);
- 12 African States do not have international flights served by African carriers, 15 States only have international flights served by African carrier for intra-Africa routes; 11 States have more than 20 international destinations served by African carriers, 7 States have more than 60 international destinations, and 4 States have more international destinations outside of Africa than within Africa (slide 15)
- 35 African States have less than 20 international flights per day while the Top 5 States have over 100 international flights daily (slide 16);
- 30% of international passengers from Africa travelled through connecting flights, and even 22% of international traffic between African States were connecting flights (slide 17)
- As over 93% passengers travel between Accra and Kinshasa took a connecting flight, the potential to offer more direct air services between the two cities can be further evaluated (slide 18)
- Six out of the Top 10 origin and destination traffic with no direct flight are to/from Cape Town and most of these traffic are connected through Johannesburg; potential to offer more direct air services between these cities can be evaluated (slide 19)



Gap Area 2: Market Share of African Airlines

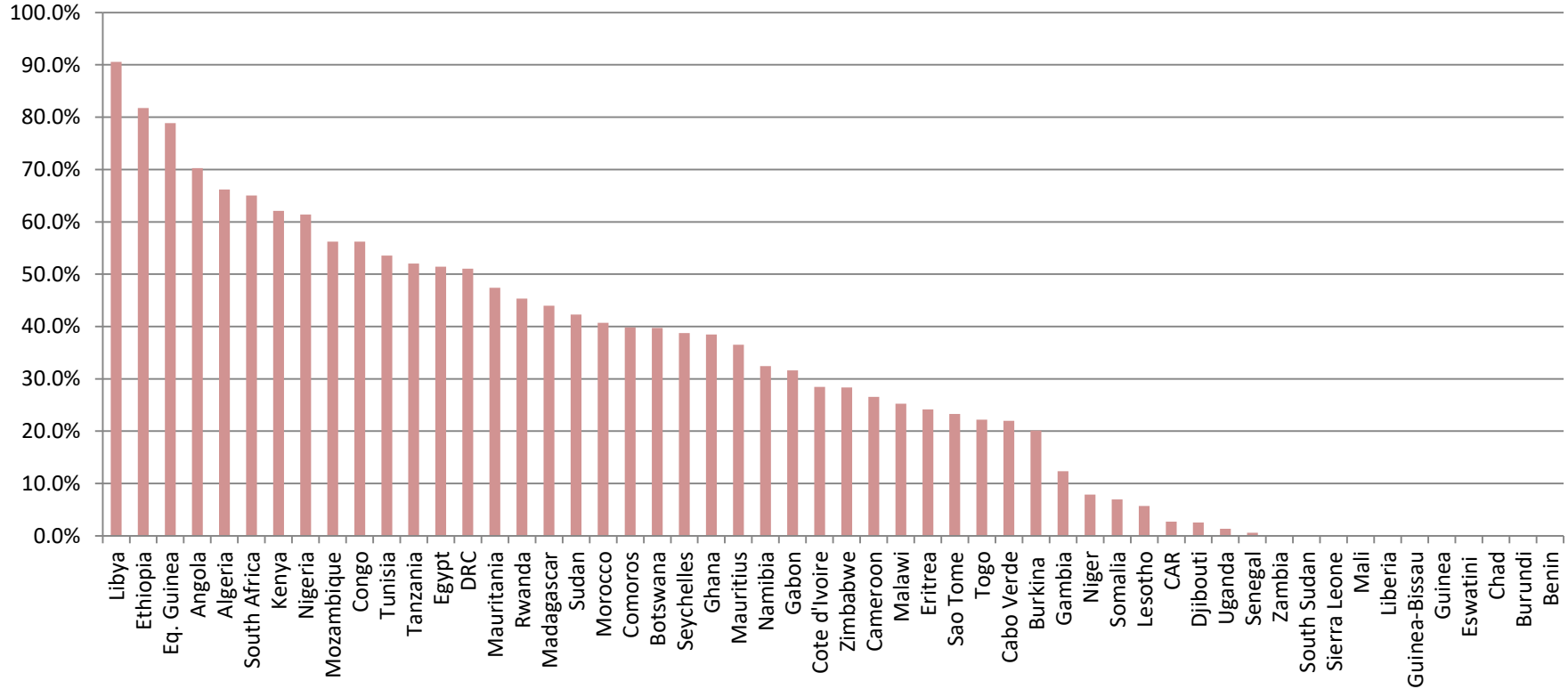


Average weekly frequency of intl scheduled services Share of Afican airlines (Summer 2018)





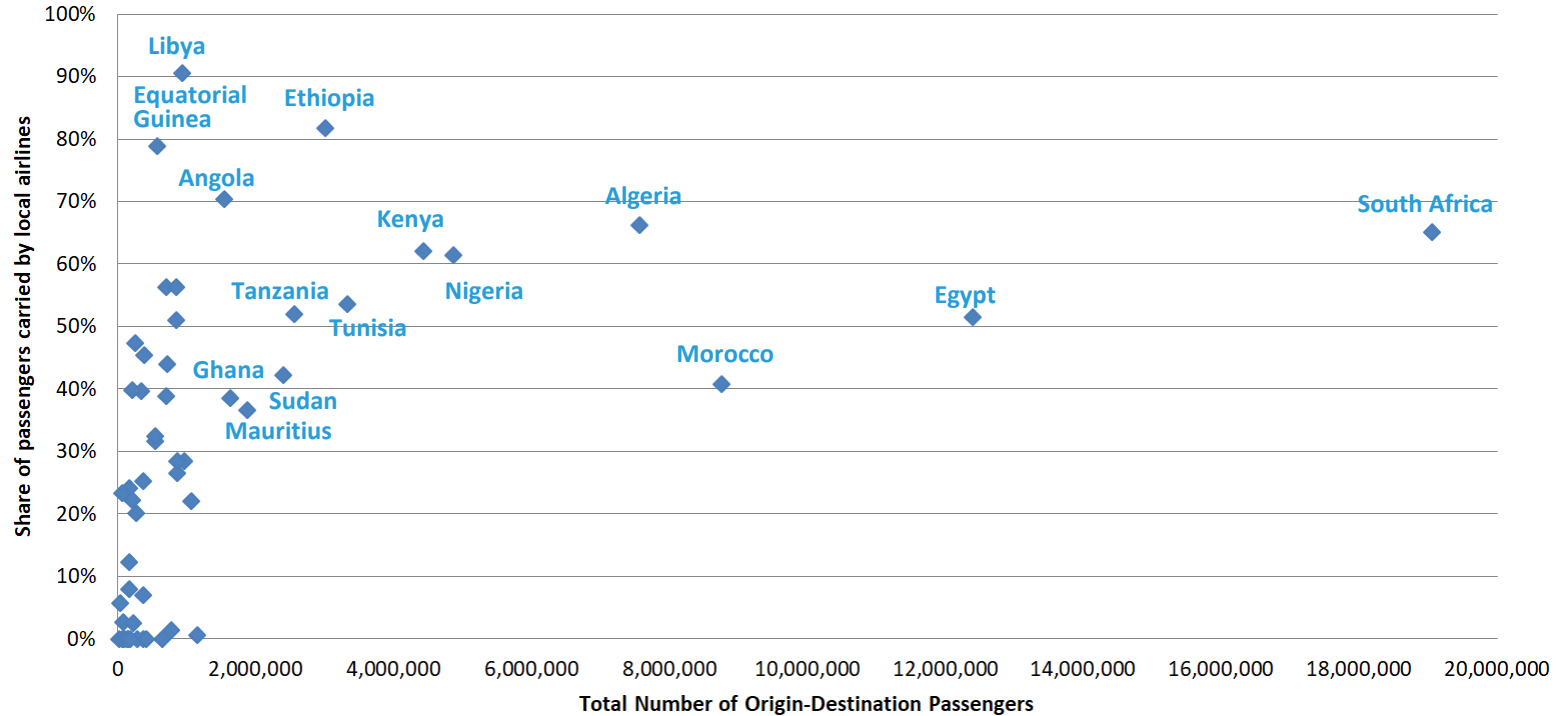
Share of Origin-Destination intl passenger by African airlines (2017)





Origin-Destination intl passengers by States (2017)

Origin-Destination Passengers by State (2017)



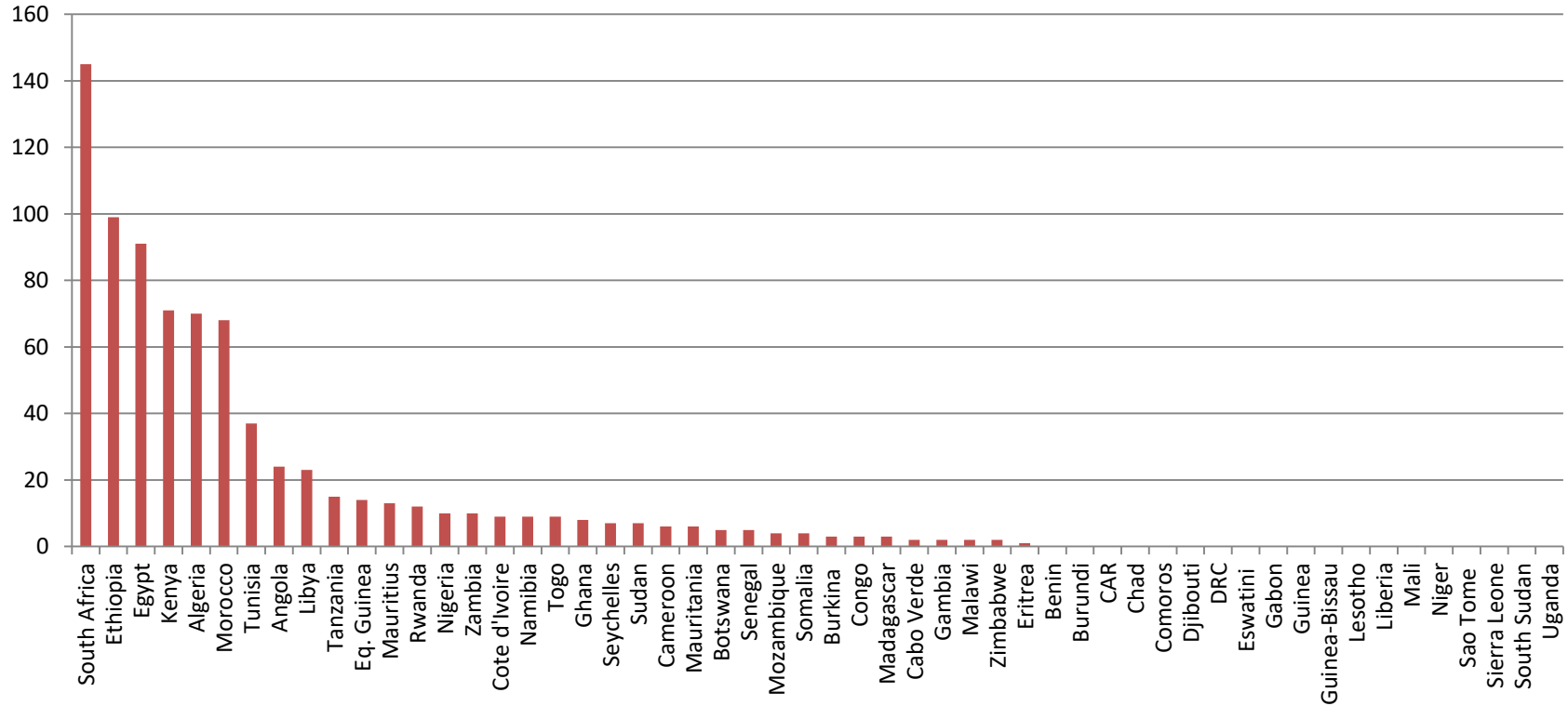


- In terms of international frequencies offered, for 23 African States, 80% of the international air services are offered by African carriers, and for 50 African States, over 50% of the international air services are offered by African carriers (slide 22)
- In terms of origin-destination passengers, for 14 African States, over 50% of international passengers are carried by African carriers (slide 23)
- Over 40 African States have less than 2 million international passengers a year, while the top State with the most international passenger numbers, South Africa, far outstripped most of other States with almost 20 million passengers (slide 24)



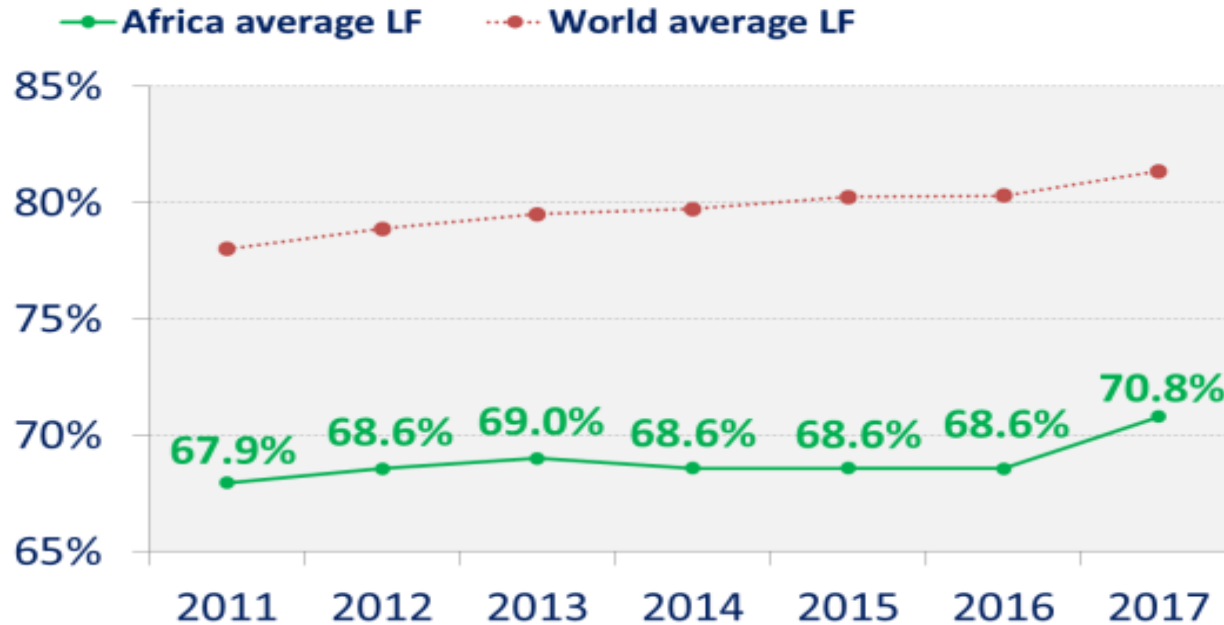
Gap Area 3: Capacity Utilization of Airlines

Number of fleet (2018)



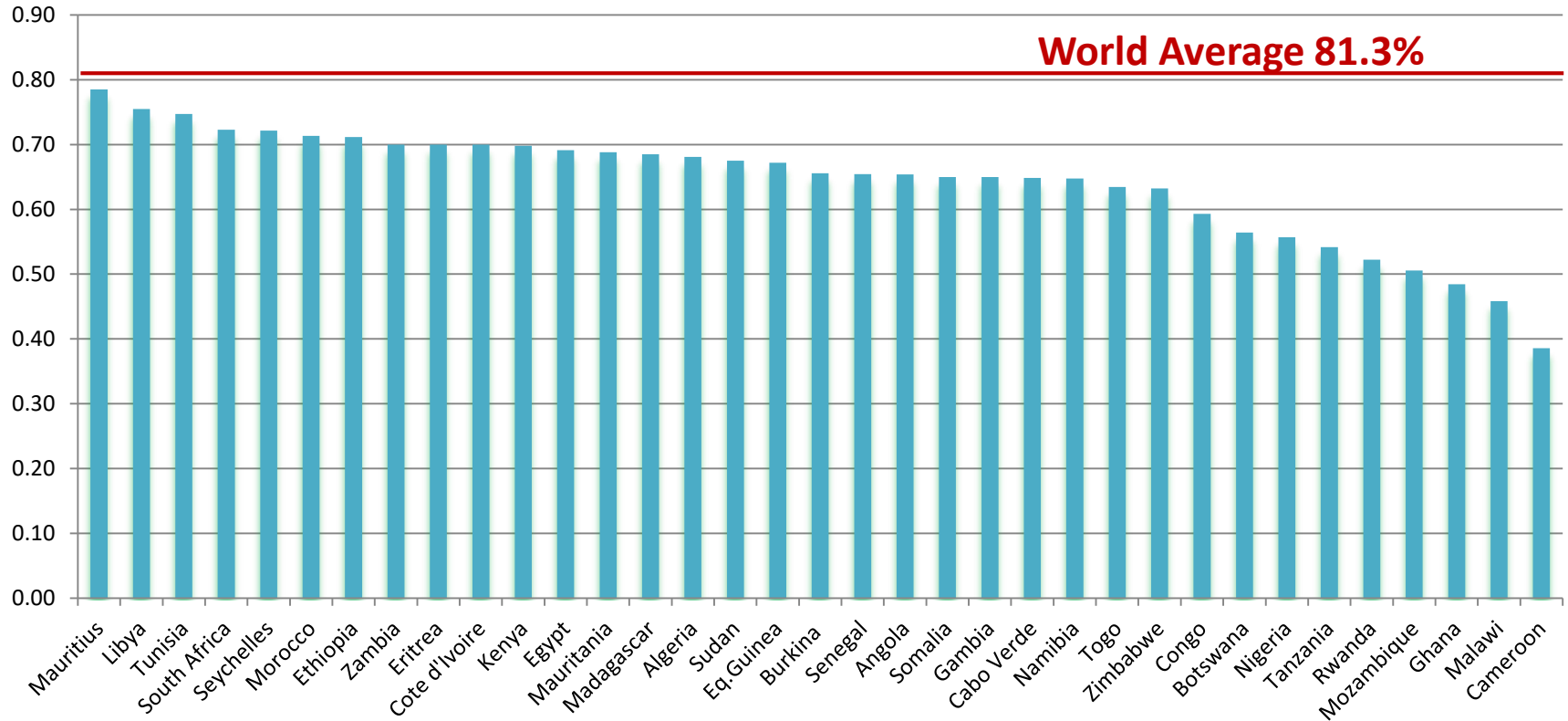


Average Load Factor of African Airlines





Average Load Factor of African airlines by States (2017)





- Top 7 States accounted for over 90% of the total number of fleet of Africa, and the capacity of most of African States is very small (slide 27)
- Average load factors of African airlines have been continuously lower than the world average in the past 7 years, and below 70%, except for the improvement observed in 2017 in line with the world average load factor increase, but it's uncertain whether the trend will continue considering the volatile of traffic growth as shown in slide 4 (slide 28)
- All the African States are facing load factors of their airlines lower than the world average, indicating the need to optimize the capacity utilization for airlines in the region (slide 29)



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Forecasts



Projected* Annual Growth of Passenger Traffic (in RPK)

RouteGroup	2015-2035 CAGR**	RouteGroup	2015-2035 CAGR
Africa Domestic	5.8%	Europe - Sub Saharan Africa	2.9%
Africa - Asia/Pacific	5.0%	Intra Africa	5.8%
Africa - Middle East	4.5%	Intra Central America/Caribbean	4.3%
Africa - North America	2.9%	Intra China & South West Asia	6.9%
Africa & Middle East - Central America/Caribbean	4.3%	Intra Europe	2.7%
Africa & Middle East - South America	3.8%	Intra Middle East	3.6%
Central America/Caribbean Domestic	4.3%	Intra North America	2.6%
Central America/Caribbean - Europe	4.4%	Intra North Asia	1.7%
Central America/Caribbean - North America	4.0%	Intra Pacific South East Asia	5.4%
Central America/Caribbean - South America	3.6%	Intra South America	3.1%
Central South West Asia Domestic	6.7%	Latin America/Caribbean - Central South West Asia	5.4%
Central South West Asia - Europe	5.5%	Latin America/Caribbean - North Asia & Pacific South East Asia	4.2%
Central South West Asia - Middle East	6.8%	Middle East Domestic	3.6%
Central South West Asia - North America	5.9%	Middle East - North America	3.8%
Central South West Asia - North Asia	7.2%	Middle East - North Asia & Pacific South East Asia	4.0%
Central South West Asia - Pacific South East Asia	6.6%	North America Domestic	2.6%
Europe Domestic	2.7%	North America - North Asia	2.4%
Europe - Middle East	4.2%	North America - Pacific South East Asia	4.4%
Europe - North Africa	4.3%	North America - South America	4.0%
Europe - North America	2.8%	North Asia Domestic	1.7%
Europe - North Asia	2.5%	North Asia - Pacific South East Asia	4.0%
Europe - Pacific South East Asia	4.5%	Pacific South East Asia Domestic	5.3%
Europe - South America	4.2%	South America Domestic	3.1%

Projected* Annual Growth of Cargo Traffic (in FTK)

LTF Region	2015-2035 CAGR
Africa	3.8%
Asia and Pacific	4.3%
Europe	2.7%
Latin America and Caribbean	1.6%
Middle East	5.7%
North America	2.8%

2015-2035 CAGR

Global Passenger traffic (RPK): +4.3 %
Global Cargo traffic (FTK): +3.9%

3 fastest growing route groups in red



Region	Pilots 2016*	Pilots 2036*
Africa	7,251	18,533
Asia-Pacific	84,211	306,268
Europe	66,542	114,299
Latin America	24,965	32,827
Middle East	18,816	45,776
North America	87,577	101,966
World	289,362	619,668

	Air Traffic controllers 2016	Air Traffic controllers 2036
Africa	4,860	7,050
Asia/Pacific	25,110	48,993
Europe	23,490	29,589
Latin America	6,480	8,878
Middle East	5,670	8,434
North America	15,390	20,313
World	81,000	123,256

*Number of pilots to fly aircraft above 100 seats



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