REPORT FOR THE STUDY TO SUPPORT THE AFRICAN CIVIL AVIATION COMMISSION (AFCAC) ON AVIATION TAXES, CHARGES AND FEES

Operationalisation of the Single African Air Transport Market (SAATM) – Support to the African Civil Aviation Commission (AFCAC)

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List of Abbreviations

ACI - Airports Council International

AFCAC - African Civil Aviation Commission

AfDB - African Development Bank

AFRAA - African Airlines Association

APD - Air Passenger Duty

AU - African Union

CAAs - Civil Aviation Authorities

CAGR - Compound Annual Growth Rate

CF - Central African Republic

CG - Congo Republic

CI - Côte d’Ivoire

CM - Cameroon

CORSIA - Carbon Offsetting and Reduction Scheme for International Aviation

CV - Cabo Verde

EASA - European Union Aviation Safety Agency

ECOWAS - Economic Community of West African States

ET - Ethiopia

ETS - Emissions Trading System

GA - Gabon

GDP - Gross Domestic Product

GDS - Global Distribution System

GH - Ghana

GM - Gambia

IATA - International Air Transport Association

ICAO - International Civil Aviation Organisation

KE - Kenya

MA - Morocco

MRO - Maintenance, Repair, and Overhaul

MTOW - Maximum Takeoff Weight SAF - Sustainable Aviation Fuel

MZ - Mozambique

NA - Namibia

NE - Niger

NG - Nigeria

PBN - Performance-Based Navigation

RW - Rwanda

SAATM - Single African Air Transport Market

SAATM-PIP - Single African Air Transport Market Pilot Implementation Project

SN - Senegal

TCFs - Taxes, Charges and Fees

TG - Togo

VAT - Value Added Tax

WATS - World Air Transport Statistics

ZA - South Africa

ZCAA - Zambia Civil Aviation Authority

ZM - Zambia

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FOREWORD

The African aviation sector stands at a pivotal juncture, embodying substantial potential to drive regional integration and bolster economic progress across the continent. In particular, air transport is instrumental in fostering connectivity, an essential catalyst for enhancing trade, attracting investment, stimulating tourism, and reinforcing the socio-cultural interconnections among African nations.

Thus, the growth trajectory within the African aviation market has been earmarked to reach a compounded growth average of 8.11% (CAGR 2025-2029), according to the International Air Transport Association (Statista, 2025a). This means that passenger demand for air travel in the continent will become one of the fastest aviation development markets in the world, paving the way for airlines, both regional and international carriers to exploit this opportunity. Notably, the following highlights some of the key underlining trends reconfiguring the African aviation industry:

- In Africa, the flight market is estimated to record a revenue of USD10.62 billion by 2025.
- The market is projected to witness an annual growth rate (CAGR 2025-2029) of 8.11%, leading to a market size of USD14.50bn by 2029.
- The number of users in this market is expected to reach 108.65m users by 2029, with a user penetration of 5.8% in 2025 and 7.5% by 2029.
- The Average Revenue Per User (ARPU) is expected to be USD137.56.
- By 2029, 80% of the total revenue in the flight market is expected to be generated through online sales.
- It is noteworthy that in terms of global comparison, the United States is expected to generate the highest revenue (USD146bn in 2025) in the flight market.
- Despite challenges in infrastructure and political instability, air travel in Africa is on the rise, with Nigeria leading the way in terms of number of flights and passengers.

Overall, the development of the African aviation sector has had a significant impact in terms of driving inbound investments for African economies and job market opportunities, as well as giving national governments the opportunity to generate revenue streams through taxes. Against such a backdrop, African aviation still faces headwind challenges, such as poorly developed intra-African connectivity within the continent and lack of airport infrastructure due to limited capital access, and above all, a very protective market due to bilateral air service agreements (BASAs), despite the national governments pushing for a Single African Air Transport Market (SAATM).

Liberalising air travel across Africa could generate over a billion dollars in economic activity and create over 150 thousand jobs. However, several factors inhibit growth and efficiency in Africa's airline sector, including government restrictions, high taxes, high charges and high fees, and a lack of competition.

Nevertheless, this sector's full potential remains constrained by disparate taxation regimes, elevated operational costs, and a multifaceted regulatory environment that collectively impedes seamless integration.

This study, financed by the European Union, strategically seeks to fortify collaboration between the European Union Aviation Safety Agency (EASA) and the African Civil Aviation Commission (AFCAC) within the civil aviation domain. Through this report, the influence of varying tax structures, charges, and regulatory fees on the African aviation industry is rigorously analysed, with the overarching objective of offering actionable solutions conducive to the operationalisation of the Single African Air Transport Market (SAATM). Such an initiative aligns with the African Union's ambitious 2063 vision of establishing a unified air transport framework aimed at advancing regional cohesion and fostering sustainable economic growth, subsequently paving the way for a fully single open skies market within the continent.

This comprehensive analysis assesses current tax, charge and fee structures by identifying critical areas, that require urgent policy reform supported by rigorous econometric modelling that unveils the implication taxes, charges, and fees have on air transport development within the realms of the African market. Practical recommendations include aligning taxation practices with international standards, standardising aviation-related charges continent-wide, and dismantling barriers to pave the way for market access. These proposed reforms are not merely strategic but pivotal, as they present a pathway for the African airline industry to thrive in a competitive environment, making air travel more accessible and affordable, reducing airfares, and achieving cost-effective measures across the continent. This will call for a complete revisit of existing taxes, charges, and fees being levied by different charge authorities across the entire aviation value chain. The objective here is aimed at achieving a standardised model (e.g., standardising visa charges across the continent) that will encapsulate the distinct peculiarities that define the African aviation industry.

Ultimately, the insights and recommendations presented within this report offer a vital strategic framework and a robust roadmap for policymakers, regulatory bodies, and industry stakeholders. Through concerted efforts to harmonise taxes, charges, and fees, the African aviation industry can unlock its extensive potential, paving the way to a well-connected, economically resilient, and inclusively developed aviation sector.

OBJECTIVES OF THE STUDY

The purpose of this project was to conduct a compendium study that will support the African Civil Aviation Commission (AFCAC) on aviation charges, taxes, and fees related to African aviation. The aim of the study was directed towards supporting the operationalisation of the Single African Air Transport Market (SAATM), providing technical and financial assistance to AFCAC, delivering a clear blueprint model aimed at assisting African Union (AU) Member States in identifying aspects of their tax regimes that have impeded the AU Member States' drive towards harmonising African air transport market by embracing "open skies" policy and Free trade area. Tax harmonisation is one of the structural adjustments required to build a viable air transport market on the continent. The study conducted a gap analysis on taxes and charges across the African continent, underlying the overall objective to contribute to the development of the air transport sector in the continent. The specific objectives are as follows:

- **Assessment of ICAO's Policies on User Charges:** Conduct a thorough evaluation of ICAO's policies on user charges and their applicability to the African aviation context. This includes examining the principles and procedures outlined in ICAO documents, such as Doc 8632 and Doc 9082, with a view to providing guidance for advocacy efforts towards African states to adopt these policies. Additionally, consultations should be conducted with key stakeholders in the aviation industry to gather insights and perspectives on the implementation of ICAO's policies.

- **Economic Analysis for Traffic Increase:** Perform an economic analysis to demonstrate the potential gain in tax revenues for African governments resulting from increased air traffic. This involves quantifying the projected impact of reducing taxes and charges on air travel demand and subsequent revenue generation, thereby providing empirical evidence to support advocacy efforts towards reducing the financial burden on airlines and passengers.

- **Harmonisation of National Legislations:** Conduct a comparative analysis of national legislation and regulations governing aviation charges, taxes, and fees across African countries. Identify discrepancies and areas of inconsistency that hinder harmonisation efforts and provide recommendations for aligning national policies with regional and international standards. This aims to facilitate smoother operations and promote uniformity in taxation practices across the continent.

- **Cost Reduction for Airlines and Passengers:** Investigate strategies and measures aimed at reducing the operating costs of airlines and airfares for passengers within the African aviation market. This includes analysing factors contributing to high operational costs, such as fuel prices, taxation, and infrastructure charges, and proposing actionable solutions to mitigate these challenges. By enhancing cost efficiency, the study aims to improve the competitiveness of African airlines and enhance affordability for passengers.

- **Support for Low-Cost Airlines Operations:** Assess the regulatory and operational environment for low-cost airlines operating in Africa, identifying barriers and challenges that impede their growth and sustainability. Develop recommendations to streamline regulatory processes, improve market access, and create an enabling environment conducive to the expansion of low-cost carriers. This objective aims to promote greater accessibility and affordability of air travel, thereby stimulating market competition and enhancing consumer choice.

This Gap Analysis will serve as a strategic tool for AFCAC and other key stakeholders, providing actionable insights and recommendations to advance regulatory reforms, promote economic growth, and enhance connectivity within the African aviation sector. By leveraging the study's findings, AFCAC can play a pivotal role in driving positive change and realising the full potential of air transport as a catalyst for sustainable development in Africa.

This study will provide valuable insights and recommendations to AFCAC and other key stakeholders in several ways:

- ***Informed Advocacy Efforts***: The study will equip AFCAC with evidence-based arguments and economic analyses to advocate for the adoption of ICAO's policies on user charges. By demonstrating the potential benefits of aligning taxation practices with international standards, AFCAC can effectively engage African states and promote regulatory reforms conducive to the sustainable growth of the aviation sector.

- ***Revenue Generation Strategies***: By showcasing the potential gains in tax revenues resulting from increased air traffic, the study will assist AFCAC in engaging with African governments to illustrate the economic benefits of reducing taxes and charges. This will enable AFCAC to collaborate with policymakers in developing revenue-generation strategies that balance fiscal objectives with the imperatives of promoting air transport connectivity and economic development.

- ***Facilitated Harmonisation***: Through its analysis of national legislation and regulations, the study will identify opportunities for harmonising taxation policies across African countries. By providing recommendations for aligning national frameworks with regional and international standards, AFCAC can facilitate greater consistency and coherence in regulatory approaches, thereby enhancing operational efficiency and promoting cross-border cooperation within the aviation sector.

- ***Enhanced Cost Competitiveness***: By addressing factors contributing to high operating costs and airfares, such as fuel prices and infrastructure charges, the study will enable AFCAC to collaborate with stakeholders in implementing measures to improve cost competitiveness for airlines and passengers. This will support AFCAC's efforts to foster a conducive business environment that encourages investment, innovation, and market growth in the African aviation industry.

- ***Support for Market Competition***: The study's focus on promoting the operations of low-cost airlines will contribute to AFCAC's objective of enhancing market competition and consumer choice within the African aviation market. By identifying regulatory barriers and proposing solutions to facilitate the growth of low-cost carriers, AFCAC can foster a more dynamic and inclusive aviation ecosystem that caters to the diverse needs of travellers and stimulates economic development.

The comprehensive gap analysis of taxes, charges, and fees across the African continent will serve as a foundational resource for policymakers, regulators, and stakeholders in the aviation industry. By identifying disparities and inconsistencies in the current taxation framework, the analysis will shed light on areas where regulatory reforms and harmonisation efforts are urgently needed. This understanding is crucial for promoting a more transparent, equitable, and efficient taxation system that fosters growth and competitiveness within the African aviation sector. Moreover, the gap analysis will provide valuable insights into the economic impacts of existing taxation practices on airlines, passengers, and the broader aviation ecosystem. By quantifying the financial burdens imposed by taxes and charges, the analysis will underscore the importance of streamlining taxation policies to alleviate operational costs for airlines and improve affordability for passengers. This, in turn, will contribute to enhancing air connectivity, stimulating market competition, and driving economic development across the continent.

Furthermore, the Gap Analysis will facilitate evidence-based decision-making and strategic planning among key stakeholders, including AFCAC, national governments, regulatory bodies, and industry associations. Armed with a comprehensive understanding of the prevailing taxation landscape and its implications, stakeholders will be better equipped to develop targeted interventions and policy initiatives aimed at addressing identified gaps and challenges. Whether through advocacy efforts for the adoption of international standards, harmonisation of national regulations, or implementation of cost-reduction measures, the insights gleaned from the analysis will guide collaborative actions to optimise taxation practices and promote sustainable growth in the African aviation sector. Ultimately, the gap analysis will serve as a catalyst for driving systemic change and advancing the overarching objectives of enhancing connectivity, promoting economic prosperity, and ensuring the long-term viability of air transport in Africa.

INTRODUCTION

The African aviation sector stands as a pivotal component of the continent's economic landscape, playing a crucial role in facilitating regional connectivity, trade, and tourism. Despite representing only 2-3% of the global aviation market in terms of passengers and Revenue Passenger Kilometres (RPKs), Africa accounts for approximately 17% of the world's population. This underscores the immense potential for further development and growth within the African aviation industry.

In general, countries with large populations and economies or small but rapidly growing populations and economies represent an opportunity for the development of strong domestic and international networks (AfDB, 2020).

However, the African region clearly shows a partial misalignment between the size of the population, economy, and air traffic growth. The continent presents a set of challenges that are unique to its environment and principally include high costs, poor infrastructure, and sparse demand.

Prior to the onset of the COVID-19 pandemic, the African aviation sector experienced a period of notable expansion, characterised by significant increases in air travel demand and capacity. Between 2008 and 2018, the region witnessed a steady annual growth rate (CAGR) of 4.6%, with scheduled seats rising from 136.7 million to 213.6 million. Projections indicated further growth at a rate of approximately 3.4% per year over the subsequent two decades, promising substantial economic contributions and job creation opportunities associated with the industry (Samunderu, 2022).

Deconstructing the terminology of Taxes, Charges, and Fees

Understanding the concepts and terminology of ticket taxes, charges, and fees is key to avoid misunderstanding. Hence, there are important distinctions between taxes, fees, and charges. The ICAO

Council describes the distinction between a tax and a charge as follows (ICAO Doc. 9082, Foreword, 9th Edition):

- As considered by the Council, a charge is a levy that is designed and applied specifically to recover the costs of providing facilities and services for civil aviation, and a tax is a levy that is designed to raise national or local government revenues, which are generally not applied to civil aviation in their entirety or on a cost- specific basis.
- Aside from the ICAO definitions above, it is important to note that taxes are generally imposed by means of an act of the legislature in each jurisdiction, whereas charges or fees are generally negotiated in commercial agreements between airlines and airport authorities/operators. These differences can have important implications for how taxes vs fees/charges are included on the ticket and how they are disclosed to the passenger, amongst other considerations which are further elaborated in this document.

These taxes, fees, and charges, as further emphasised by ICAO, must be non-discriminatory, cost-related, and transparent. There must be consultation of users before they are put in place. However, as we examine this study further, we see the continuous proliferation of these taxes, charges, and fees by various countries in Africa indiscriminately.

The general impression is that airlines charge exorbitant prices. This applies even more to privately owned airlines, who have no direct support or subventions compared to government-owned airlines that are exempted from most of their local taxes, fees, and charges, which makes competition very uneven.

However, despite the sector's growth, African airlines have faced persistent challenges, particularly in terms of profitability and competitiveness. With few exceptions, most African carriers have struggled to achieve sustained profitability over the past decade, with high operating costs, inadequate infrastructure, and regulatory constraints contributing to financial pressures. Furthermore, the burden of imposed taxes, charges, and fees has further exacerbated the cost structure for airlines and passengers alike, hindering the industry's ability to thrive. Such high value taxes, charges, and fees are major contributing factors in limiting the development of air traffic in African countries.

Table 1 highlights the different types of taxes, charges, and fees that are levied on the industry value chain actors. Table 1 illustrates the different charges levied by the airport authority.

Type	Charging Authority	Type of Charges
Airport Charges	Airport	Additional Security[1]
Airport Charges	Airport	Air Bridge
Airport Charges	Airport	Airport Service Charge

[1] *BSG, SSG charged by CAA*

Type	Charging Authority	Type of Charges
Airport Charges	Airport	Airport Tax
Airport Charges	Airport	API/PNR Fee[2]
Airport Charges	Airport	Apron
Airport Charges	Airport	Baggage
Airport Charges	Airport	Cargo
Airport Charges	Airport	Check-in
Airport Charges	Airport	CUPPS[3]
Airport Charges	Airport	CUTE[4]
Airport Charges	Airport	Departure Service Fee
Airport Charges	Airport	Development[5]
Airport Charges	Airport	Embarkation Tax
Airport Charges	Airport	Fire Fighting and Prevention
Airport Charges	Airport	Fiscal Stamp[6]
Airport Charges	Airport	Follow-Me
Airport Charges	Airport	Facility Fee[7]
Airport Charges	Airport	Ground Handling
Airport Charges	Airport	Ground Power Unit
Airport Charges	Airport	Hangar[8]
Airport Charges	Airport	Housing
Airport Charges	Airport	Infrastructure
Airport Charges	Airport	Jetway Charge
Airport Charges	Airport	Landing
Airport Charges	Airport	Lighting
Airport Charges	Airport	Noise
Airport Charges	Airport	Operation Beyond Operating Hours
Airport Charges	Airport	Parking
Airport Charges	Airport	Passenger Bus

2 International Advanced Passenger Information Fee
3 Common Use Passenger Processing Systems
4 Common User Terminal Equipment
5 SEZ, DLA charged by CAA
6 IN COO charged by Government
7 So-called departure passenger handling
8 Dakar DSS – charged by Air Navigation Service Provider

Type	Charging Authority	Type of Charges
Airport Charges	Airport	Passenger Facility Charge
Airport Charges	Airport	Passenger Reduced Mobility
Airport Charges	Airport	Passenger Service
Airport Charges	Airport	Police Guard
Airport Charges	Airport	Safety[9]
Airport Charges	Airport	Slot coordination
Airport Charges	Airport	Security[10]
Airport Charges	Airport	Terminal
Airport Charges	Airport	Towing & Push-back
ATC	Air Navigation Services	NAFISAT[11]
ATC	Air Navigation Services	Overflight[12]
ATC	Air Navigation Services	Terminal Navigation[13]
Fuel Charges	Airport	Airport Fuel Fee
Fuel Charges	Airport	Airport System Fee
Fuel Charges	Airport	Concession
Fuel Charges	Airport	Hydrant
Fuel Charges	Airport	Storage
Fuel Charges	Airport	Supervision during refuelling
Fuel Charges	Airport	Throughput
Fuel Charges	Airport	Transport
Govt Taxes	Government	Air Passenger[14]
Govt Taxes	Government	Air Passenger Solidarity Tax Surplus
Govt Taxes	Government	Aviation / Airport Tax[15]
Govt Taxes	CAA	CAA Tax
Govt Taxes	Airport	Immigration User Fee
Govt Taxes	CAA	Security Tax
Govt Taxes	Government	Solidarity

[9] *DAR, JRO, ZNZ charged by CAA*
[10] *DAR, JRO, LUN, ZNZ charged by CAA*
[11] *Charged by Air Navigation Services Provider in JUB*
[12] *Charged by Air Navigation Services Provider in JUB*
[13] *In ADD, ASW, BEN, BJR, CAI, HBE, BRG, KGL, PHC, RMF, SEB, SSH, TIP charged by CAA; In FNA charged by airport*
[14] *In NIM charged by the airport*
[15] *IN DZA, RUN charged by the airport*

Type	Charging Authority	Type of Charges
Govt Taxes	Government	Stamp Tax
Govt Taxes	Government	Tourism Tax
Govt Taxes	Government	Regulatory Fee

Table 1 Breakdown of different charges by category; Source: Compiled by Author based on ACIC (2025)

As indicated in Table 1 above, the study identifies 4 different charge authorities, each underlined by its own charging type categories. However, it is imperative to note that the aviation sector is an ecosystem that has to operate in tandem in order to ensure that the discussion on taxes, charges, and fees is well balanced in order to drive the harmonisation agenda. Thus, all parts of the ecosystem – governments, regulatory authorities, airports, airlines, ground handlers, and other stakeholders- must work together to address the challenges of excessive airfares on the continent for the benefit of passengers.

It is important to remember that airports are infrastructure-intensive businesses—meaning they have unavoidable high fixed costs, and as indicated in Table 1, airport charges are defined by at least 41 charge parameters. It is evident to note that significant capital investment (infrastructural) will be needed going forward to meet demand and transition to sustainable energy sources. Airlines have been able to increase their tariffs during the last years, which is different from the airports that need to follow a regulatory framework.

From a cross-regional analysis perspective, as depicted in Figure 1 below, it illustrates the different variations by charge types across the African continent, highlighting the key imperative of driving harmonisation efforts towards a standardised model of aviation charges.

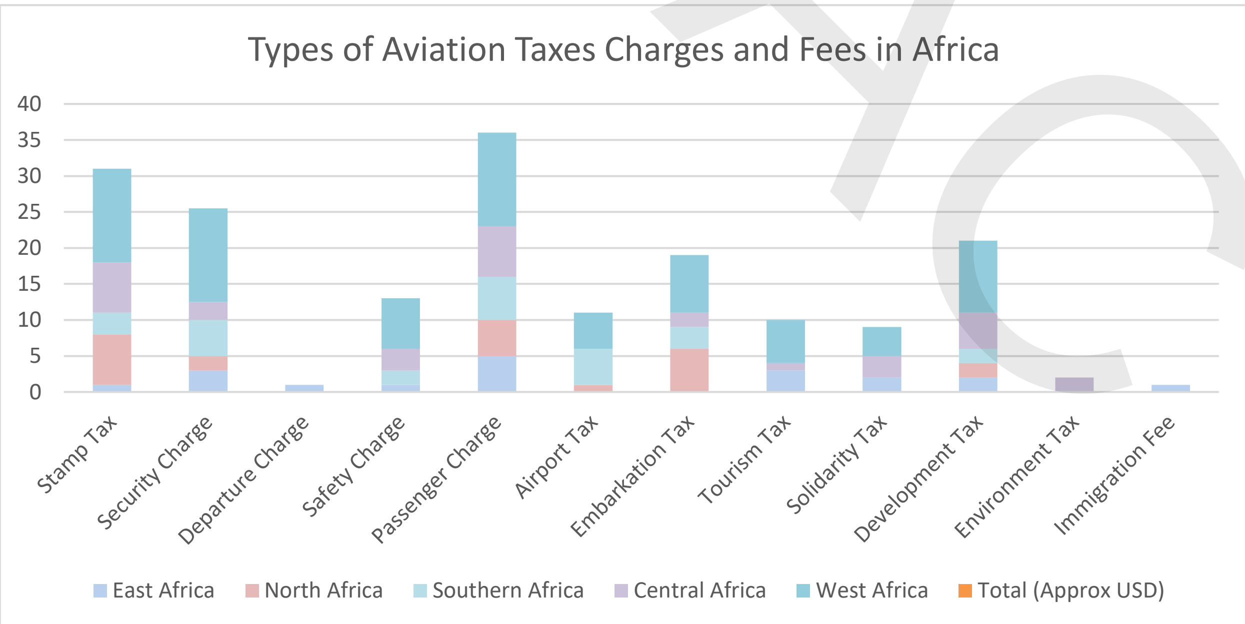


Figure 1 Types of Aviation Taxes, Charges and Fees in Africa; Source: Kenya Airport Authority (2024)

As already elaborated in this study, West Africa has the highest amount of total passenger-related charges, hence the Ministerial call in Togo in 2024 advocated for a reduction of aviation taxes, charges, and fees by 25%. Overall, the West African region has a total of 78 different taxes, charges, and fees, as shown in Figure 2 below.

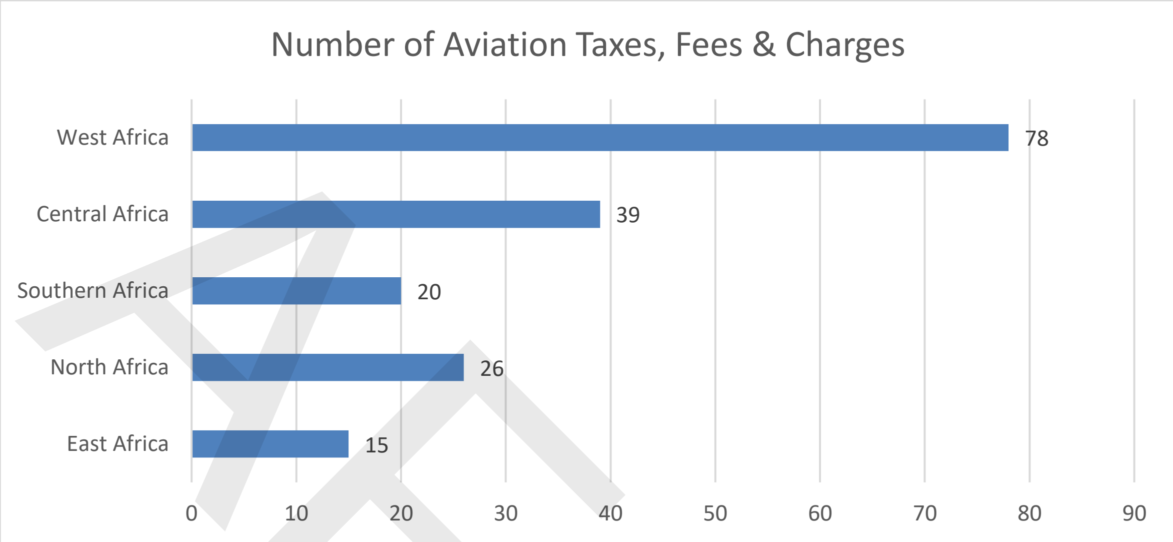


Figure 2 Number of Aviation taxes, charges and fees by region; Source: Kenya Airports Authority, 2024

Against this backdrop, there is a pressing need for comprehensive analysis and reform within the African aviation taxation framework. Addressing the inefficiencies and disparities in taxation, charge, and fee policies and practices is essential for unlocking the industry's full potential, fostering sustainable growth, and enhancing regional integration and connectivity. Air passenger taxation varies across the African continent in both the level and method of application. For the purpose of this study, we have defined a passenger tax as one which is paid to the federal government for revenue-raising purposes, as opposed to offsetting the cost of a service provided, as aligned to the IATA List of Ticket and Airport Taxes and Fees.

Thus, this study aims to delve into the complexities of aviation taxes, charges, and fees across the African continent, with a view towards identifying key challenges, recommending reforms, and supporting the objectives of organisations such as the African Civil Aviation Commission (AFCAC) in promoting a more conducive operating environment for the aviation industry. The study will propose some tailored practical recommendations aimed at impacting both strategic and policy impact across the industry.

Importance of tax harmonisation – The Rationale

Tax harmonisation is generally understood as a process of adjusting the tax systems of different jurisdictions in the pursuit of a common policy objective. Tax harmonisation involves the removal of tax distortions affecting commodity and factor movements in order to bring about a more efficient allocation of resources within an integrated market. Narrowly defined, tax harmonisation guided by this policy goal implies—under simplifying assumptions about other policy instruments and economic structure—convergence toward a more uniform effective tax burden on commodities or on factors of production across AU member countries. Convergence may be attained through the alignment of one or several elements that determine effective tax rates: the statutory tax rate and tax base, as well as enforcement practices.

Taxation influences a wide range of behaviour. For example, taxes in the aviation industry may affect a passenger's airfare structure, the size of the aircraft a carrier operates on a route, the number of departures from an airport, and the overall demand for air travel. Understanding the influence of taxes on passengers, carriers, and airports is valuable in ensuring government finances are raised efficiently without placing undue burden on participants.

Thus, the tax system in a given economy plays a crucial role in influencing the rate of short- and long-term economic growth. In aggregate, the amount of tax raised, the type of tax raised, and its interactions with public spending will affect the long-term growth rate of the economy. However, individual tax policy measures are less likely to augment the rate of economic growth for any sustained period as they are smaller in scale but can affect the level of GDP. Tax harmonisation is the process of fine-tuning tax systems across various jurisdictions/countries in search of common policy objectives. It is the removal of tax distortions that encourage business, trade, and investment.

Tax harmonisation entails a uniform rate that may not suit all governments. Harmonisation can advance collective governmental objectives only if the standard deviation of tax rates is less than the average downward effect of tax competition on rates. Since an efficient harmonised tax rate undoes the effect of competition, an efficient rate equals or exceeds the sum of the observed average tax rate and the standard deviation of rates.

Tax harmonisation is an appealing alternative to tax competition. Instead of a tax landscape with widely differing rates and bases, a harmonised African tax system features a single tax rate applied to a common base. Since tax rates would not differ, there would be no tax-based reasons to prefer locating economic activity in one jurisdiction over another.

Therefore, African policymakers and other related stakeholders should focus on developing concrete strategies and common policies to lower air travel costs, which are currently among the highest globally. This calls for a continental-wide consensus to tackle excessive taxes, charges, and fees hampering the full progress of driving air transport development on the continent.

The goal is to harmonise aviation charges, taxes, and fees in line with international standards set by the ICAO through a regional Supplementary Act. To this end, ECOWAS initiated and endorsed a ministerial strategy pathway on 6 November 2024 in Lome, Togo, designed to establish a unified regional framework on taxes charges, and fees, paving the way for a significant reduction of 25% on two main charges for passengers and security. Despite the drive to strategise the efforts towards harmonisation of the taxes, charges, and fees, the following impediments remain, as cited by ECOWAS member states:

- Insufficient implementation of the Regional Policy on Air Transport Charges, Fees and Taxes.

- Insufficient incorporation of the Convention on International Civil Aviation (Chicago Convention) in national legislation and regulations:

  a. Article 15 of the Chicago Convention stipulates three (3) basic principles: Application of uniform conditions for using airports and air navigation facilities/services; No discrimination in charges; No charge solely for the right to overfly, enter or exit.

  b. Article 24 of the Chicago Convention, which exempts from Custom Duty: Fuel, Lubricants, Spare parts, regular equipment and aircraft stores on board on board an aircraft; as well as Spare parts and equipment imported into the territory of a contracting States for incorporation in or use on an aircraft of another contracting States engaged in international air navigation.

ICAO has established four key charging principles to guide the way that States set charges for air navigation services, airports, and related aviation infrastructure. These principles aim to ensure that charges are fair, reasonable, and supportive of safe and efficient aviation. Here are the four key charging principles:

- ICAO's four key charging principles (Doc 9082 - ICAO's Policies on Charges for Airports and Air Navigation Services; Doc 8632 - ICAO's Policies on Taxation in the Field of International Air Transport) of non-discrimination, cost-relatedness, transparency and consultation with users in order to ensure compliance by airport operators and air navigation services providers (ANSPs).

- Lack of effective economic oversight of airports, ANSPs and CAAs across the West Africa region (as recommended by ICAO's Guidance material on Economic Oversight of ANSP in Doc 9161)

Overall, aviation taxes, charges, and fees in ECOWAS states are increasing in number and these include the following: airport charges, route navigation charges, landing/takeoff fees, parking hangar fees, passenger service charges, aviation safety/security, development charges, fuel charges environmental charges such as CO_2 emissions and noise. AFRAA (2024) presents a comparison regional picture of average airport-related charges. See Figure 3 below.

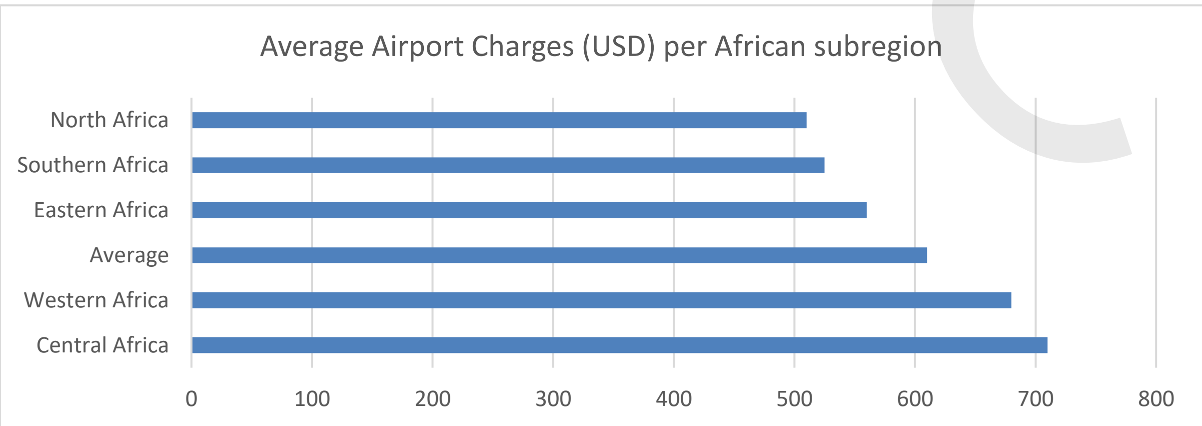


Figure 3 Average Airport Charges (USD) per African subregion; Source: ECOWAS, 2024

The ECOWAS Ministerial meeting also highlighted the fact that incremental shifts in average international departure taxes continue to put pressure on the airline´s operating cost model, resulting in a “squeeze” in already thin profit margins. Figure 4 below highlights this constraint.

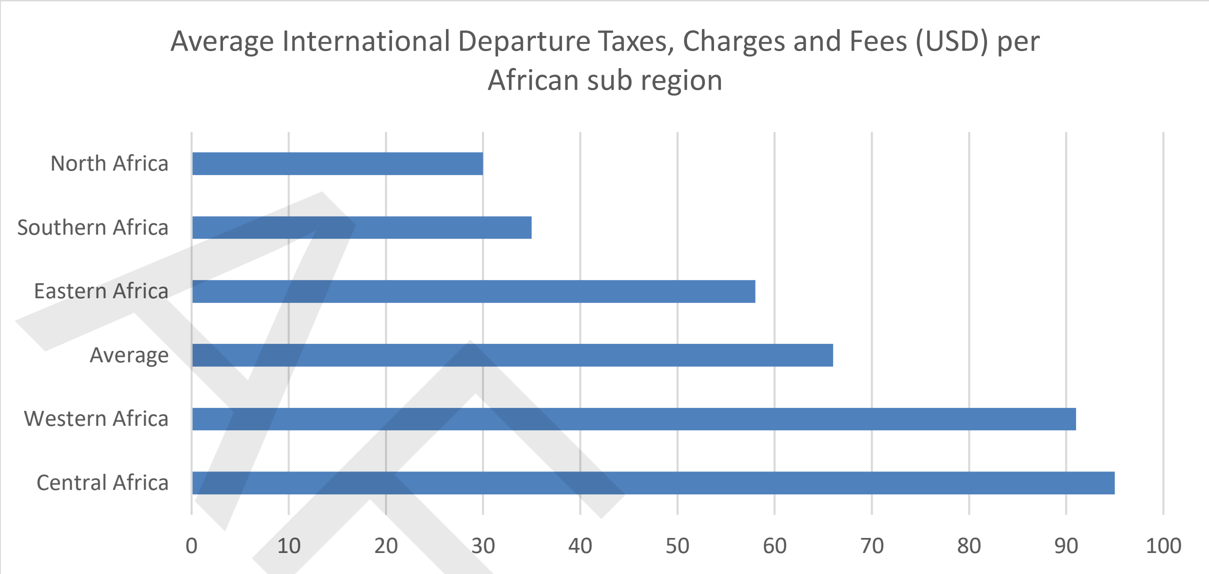


Figure 4 Average International Departure Taxes, Charges and Fees (USD) per African sub-region; Source: ECOWAS, 2024

The 2023 Workshop conducted by ICAO, AFRAA, ACI, IATA, AFCAC, and CANSO on Aeronautical Charges echoes the general sentiment on Africa´s taxes, charges and fees challenges. Key highlights indicated that on average, passengers in Africa pay 3,5 different taxes, representing USD65,96 (rounded to USD66,00). In comparison, the average amount for taxes on international departures is as follows: USD32,50 in the Middle East and USD32,12 in Europe. See Figure 5 for an explicit regional comparison.

Aviation charges, taxes, and fees in the ECOWAS region are increasing, increasing in turn the operating costs for airlines, impediments for low-cost airlines, and airfares for passengers (AFRAA, 2024). Central and Western African regions rank highest within the continent in terms of taxes, charges, and fees.

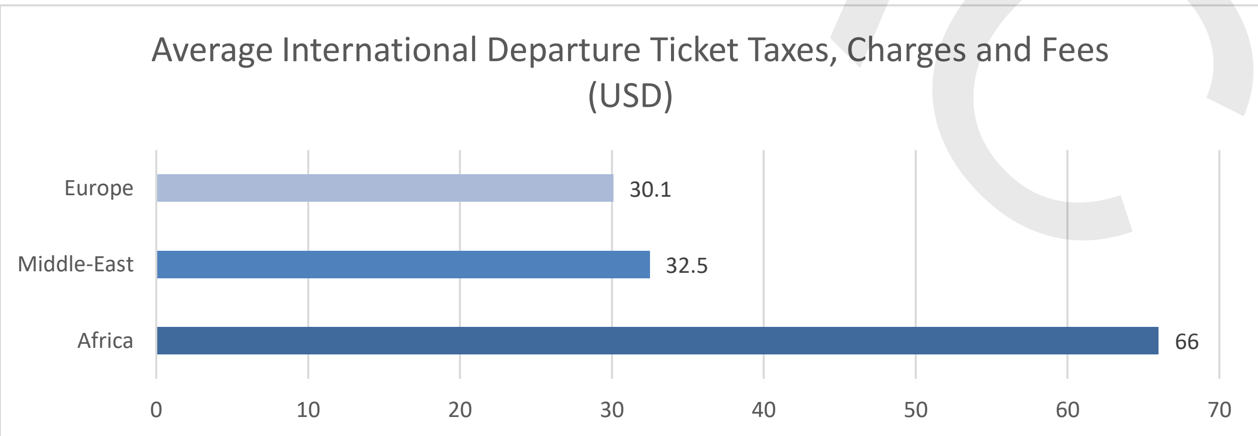


Figure 5 International average departure passenger paid taxes and fees; Source: ECOWAS, 2024

Notably, the tax system plays a crucial role in influencing the rate of short and long-term economic growth in the economy. In aggregate, the amount of tax raised, the type of tax raised, and its interaction with public spending will affect the long-term growth rate of the economy. While individual tax policy measures are less likely to augment the rate of economic growth for any sustained period as they are smaller in scale, they can still affect the level of GDP.

Indirect taxes, such as passenger taxes, create market distortions by increasing the price of a good or service to which tax is charged. This leads businesses and households to adjust their behaviour to avoid paying the tax, resulting in a lower quantity sold, in this case, flights. By reducing the amount purchased, consumers are worse off – the extent of which is defined as a deadweight loss from taxation. We explain this concept with the use of a supply and demand curve framework (Figure 6).

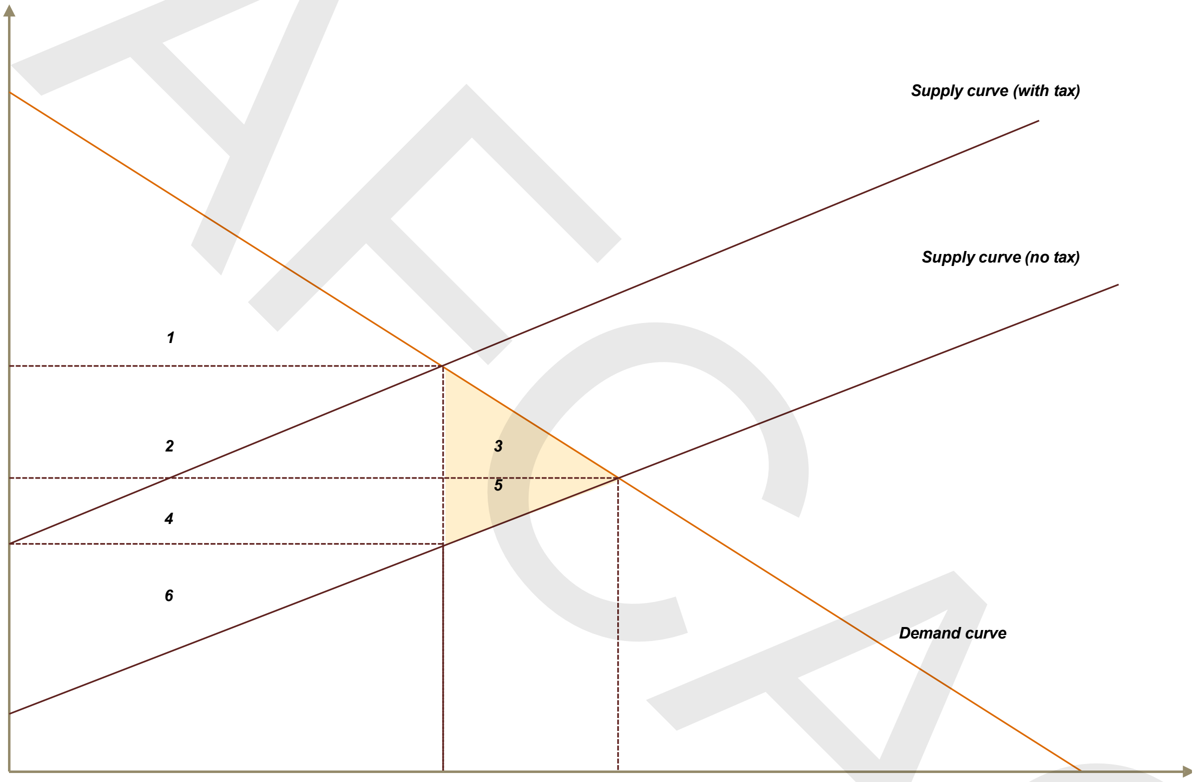


Figure 6 Deadweight loss (as marked in yellow) caused through application of indirect tax

It is important to note that although airport charges are generally used to provide facilities and services for civil aviation, there may be cases in which airport charges are passed on to the treasury and used for general public purposes. For a fair comparison between countries, we treat charges that are directly passed on to the treasury and are used for general public purposes as indirect taxes.

Tax base harmonisation, for instance, has the capacity to encourage transparency and better financial and economic decision-making, and improved efficiency in resource allocation. At the sub-regional ECOWAS level, tax harmonisation has achieved some measures of success, particularly in the French-speaking West African Economic and Monetary Union (WAEMU) countries, where there has been a long history of the effort of tax coordination and harmonisation as far back as 1994.

Tax harmonisation can relieve downward rate pressure from tax competition but does so at the cost of requiring governments to adhere to collective rules that may be insensitive to differences in the needs of individual jurisdictions. A harmonised aviation tax regime model can be set as high as African countries collectively desire, making it possible to reverse any effects of tax competition on average tax rates. Consequently, the larger the effects of tax competition, the greater the potential corrective opportunity presented by tax harmonisation. Notably, however, aviation tax harmonisation does more than just adjust the average tax rate. Since a harmonised tax rate is the same for all, aviation tax harmonisation prevents countries from tailoring their aviation tax rates to individual situations. The cost of mandatory uniformity rises with differences in desired tax rates and these differences are reflected in, and largely revealed by, differences in the tax rates that countries choose in the absence of harmonisation.

The taxes are not easily compared between countries, as some taxes vary by destination country, others vary by airport, and some include transfers as well as departures. Nevertheless, it is also possible to perform benchmarks of the rates across the entire African Union against each other by including all different rates, regardless of how the taxes are banded. This study limits the scope by only conducting an observation analysis based on the available dataset.

In the European Union (EU), tax harmonisation grew considerably with attempts to foster greater regional trade and investment. The European model of tax harmonisation offers a discernible example involving a multi-decade process that began with policy harmonisation with respect to trade, followed by harmonisation of standards and the creation of institutional and legal structures, as well as a long period of policy coordination.

Harmonising the aviation tax, charges, and fees framework across the African continent holds immense significance for fostering regional integration, enhancing economic development, and promoting sustainable growth within the aviation industry. At present, the lack of uniformity variation in taxation policies and practices among African countries not only creates administrative burdens for airlines but also hampers the seamless movement of passengers and goods across borders. This variation results in inefficiencies, increased operational costs, and regulatory complexities, ultimately undermining the competitiveness of African airlines and impeding the region's ability to fully capitalise on its aviation growth potential.

Through multilateral harnessing efforts to achieve a common model on aviation taxes, charges, and fees, African countries can streamline regulatory processes, reduce compliance costs, and facilitate smoother operations for airlines operating within the continent. This harmonisation would create a more conducive business environment, encouraging investment, innovation, and market expansion within the aviation sector. Furthermore, a standardised framework would promote transparency and predictability, providing clarity to airlines and passengers regarding the financial obligations associated with air travel. This, in turn, would enhance consumer confidence, stimulate demand for air travel, and support the growth of intra-Africa connectivity, thereby fostering economic integration and regional development.

At the African Union (AU) level, tax harmonisation has yet to take a full and holistic course due perceptibly to institutional and legal constraints and the binding unanimity to embark on such a move. For the RECs, this archetypical harmonisation may not immediately work, given the existence of heterogeneous conditions arising from individual country fiscal peculiarities, which differ to those that existed when Europe embarked on its grand enterprise. The focus should, however, be on implementing the optimal policy that will fast-track policy harmonisation.

For instance, differences exist in tax harmonisation in the ECOWAS due to imposing limitations on the execution of powers and regional institutional resources (Uyioghosa & Igbinosa, 2023). While the West African Economic and Monetary Union (WAEMU), which consists of the French-speaking ECOWAS countries, has had a long history of tax harmonisation, the English-speaking countries of ECOWAS in the region have had less history of explicit tax policy coordination and harmonisation. In recent years, however, there have been shifts in policy and efforts towards tax harmonisation following the success achieved by WAEMU countries and Europe. The aim is to create a streamlined trade and investment environment in the region, mobilise tax revenue, and deal with the challenges of tax competition in certain indirect consumption taxes. In the French-speaking ECOWAS member countries, more than 80% of tax revenue, including revenue from tariffs, originates from taxes that are subject to regional policy directives or regulations.

Moreover, the harmonisation of aviation taxation policies is essential for promoting fair competition and a level playing field within the African aviation market.

It is imperative to note that adopting tax exemptions will have further benefits for the industry should tax exemptions result in higher passenger demand, leading to a larger aviation sector (both in terms of jobs and value-added), and more flights. For the wider economy, this means increased connectivity, which is correlated with a higher GDP (although there is a discussion in the academic literature on whether there is a causal relation and, if so, whether an increase in connectivity causes an increase in GDP or the other way round). Whether or not the total economic impacts are positive or negative on balance depends on the structure of the economy. With African economies exhibiting a spectrum of different economic performances, harmonisation will have to be driven by political will.

Currently, variations in taxation practices among countries create distortions in the competitive landscape, favouring airlines operating in jurisdictions with lower tax burdens. By establishing consistent taxation standards, African countries can mitigate these disparities, ensuring that airlines compete based on factors such as service quality, operational efficiency, and innovation rather than tax advantages. This fosters a more equitable and sustainable aviation ecosystem where airlines of all sizes and business models can thrive, contributing to broader economic growth and social development across the continent. In essence, harmonising aviation taxes, charges, and fees is not merely an administrative convenience but a strategic imperative for unlocking the full potential of the African aviation industry and driving progress towards a more integrated and prosperous future.

Henceforth, the reduction of taxes, charges, and fees could have a multiplier effect on stimulating air travel demand across the continent. According to an AFRAA Report (2020), the price elasticity of demand for air transport within Africa ranges from -2.34% to -3.15%. This implies that a 10% reduction in ticket prices could increase demand at the continental level by 22.3 to 30.1 million passengers annually, highlighting the potential economic and social benefits of addressing these tax-related barriers.

SAATM Impact

Despite the expected economic gains predicted by the implementation of the SAATM, critics are sceptical of its implementation. The following factors have been commonly identified as bottlenecks that would impede full implementation, according to the Deloitte Report (2018).

- Unfair competition.
- Restrictions on movement.
- Charges and taxes – across the continent, there is a lack of uniform charges and taxes.
- Non-protection of indigenous airlines – there is a threat of non-African investors abusing the open skies deal by setting up airlines in some African countries and taking full advantage of the policy, as there is no way to ascertain the shareholder structure.
- Lack of reciprocity – the principle of open skies is based on reciprocity that states, "favours, benefits or penalties that are granted by one State to the citizens or legal entities of another should be returned in kind". This will ensure a fair playing field for all Member States and ensure that all the Member States benefit from the declaration. Today, in Africa, this is not currently applied to visas nor the movement of cargo.

The outcome of liberalisation has also resulted in reduced airfares for passengers due to increased airline operating efficiencies and changes in competition dynamics. Other outcomes of liberalisation include a significant increase in air traffic volumes, reflecting the greater accessibility of aviation for business and personal purposes. Table 2 highlights some of the key benefits of the open skies agreement of a selected group of countries.

Country	Passenger Volume (PAX)	Gross Domestic Product (GDP)	Jobs
Algeria	+419,000	USD 124M	11,100
Angola	+531,000	USD 137M	15,300
Egypt	+318,000	USD 114M	11,300
Ethiopia	+202,000	USD 60M	14,800
Ghana	+335,000	USD 47M	9,500
Kenya	+406,000	USD 77M	15,900
Namibia	+529,000	USD 94M	10,600

Country	Passenger Volume (PAX)	Gross Domestic Product (GDP)	Jobs
Nigeria	+426,000	USD 77.6M	18,600
South Africa	+800,000	USD 283,9M	14,500
Tunisia	+343,000	USD 114M	8,100
Uganda	+426,000	USD 77.6M	18,600
Senegal	+214,000	USD 41M	8,000

Notes: All 12 countries total passenger volume = 4,9M, GDP =+1,297M and jobs =+155,100

Table 2 The benefits of Open Skies; Source: Samunderu, 2024

Types of Aviation Taxes

As already mentioned, the aviation industry is subject to a wide range of fees and charges. Many of these, such as airport landing charges, passenger security charges, and route facility charges imposed by air navigation services, are essentially user fees charged for services, with the proceeds marked for aviation-related purposes, rather than taxes, whose proceeds are put to general use.

There are several possible types of indirect tax on aviation:

1. *An excise tax* – one that (unlike the value-added tax [VAT]) is not creditable or refundable to business users on aviation fuel, which for brevity is assumed through the analysis to be levied in a specific form (that is as fixed monetary amount per gallon/litre).

2. *A ticket tax* – an ad valorem excise on sales of passenger tickets and cargo waybills.

3. *A trip tax* – which means that some charge is levied on a passenger as a fixed amount per trip, at a common rate for all trips within some wide class. E.g., departure tax.

Before attempting to examine the benefits associated with air transport market liberalisation, it is important to take a closer look at some of the barriers to greater air transport integration in Africa. These include limited harmonisation of existing regulations, an under-developed African air transport industry underlined by limited intra-African connectivity, high operational costs, and high costs associated with air travel. Furthermore, this has confounded economic oversight which is overshadowed by a proliferation of taxes, including the following tax parameters on international transportation.

- *Security tax*
- *Solidarity tax*
- *Sojourn tax*
- *Stamp duty tax*
- *Health tax*

Such barriers constrain the potential benefits of integrating the air transport market, as air transport taxation is frequently regarded primarily as a revenue stream rather than as a tool for financing development.

Harmonising aviation taxes, charges, and fees across the African continent is integral to the success and effectiveness of the Single African Air Transport Market (SAATM) initiative. SAATM aims to liberalise air transport services, facilitate market access, and promote connectivity among African nations. However, the presence of varied taxation frameworks among countries poses significant challenges to the seamless operation of SAATM. Inconsistencies in taxation practices can create barriers to entry for airlines, distort competition, and impede the free flow of air traffic across borders.

Through the consolidated effort to harness tax regimes across the continent, SAATM can achieve greater coherence and alignment in regulatory policies, thereby promoting a more conducive environment for air transport operations. Standardising aviation taxes, charges, and fees ensures a level playing field for all aviation value chain actors operating within the SAATM framework (Samunderu, 2023). By removing disparities in financial obligations, harmonisation reduces market distortions and fosters fair competition among carriers. This not only encourages participation from a broader range of airlines but also incentivises investment in route expansion and fleet modernisation, ultimately leading to improved connectivity and choice for passengers.

Furthermore, the harmonisation of aviation taxes supports the overarching goals of SAATM by enhancing affordability and accessibility to air travel across Africa. Consistent taxation practices help to mitigate the financial burden on airlines, allowing for more competitive airfare pricing. Lower costs translate into more affordable tickets for passengers, thereby stimulating demand and increasing passenger volumes. This, in turn, contributes to the growth of the aviation sector, drives economic activity, and facilitates greater integration and cooperation among African nations. In essence, harmonising aviation taxes, charges, and fees is essential for realising the full potential of SAATM, as it lays the groundwork for a more efficient, competitive, and interconnected single air transport network across the continent.

Fuel costs

Fuel costs are one of the primary drivers of airline ticket prices. While prices surged in 2022 due to high demand following the previous pandemic-related slump in air travel, they have stabilised over the past two years with some fluctuations. As of July 2024, the price for a gallon of jet fuel was around USD 2.39, down 42 percent compared to its post-2019 peak in 2022 and today, according to IATA Jet Fuel Price Monitor (March 2025), the price hoovers at USD 3.86.

Generally, in air transport, fuel costs represent a huge proportion of an airline´s operational expense structure. Whilst some carriers in Europe like Ryanair have resorted to fuel hedging strategies, hedging strategies vary from airline to airline, and most of them hedge for a one-year term (short-term contract).

Rising oil prices pose a big problem for the airlines as it is difficult to pass on the extra cost to the passengers because of high competition and the fact that most tickets are bought well in advance when the ticket price does not reflect the actual fuel price at the time of flight (Samunderu, Perret & Geller, 2023).

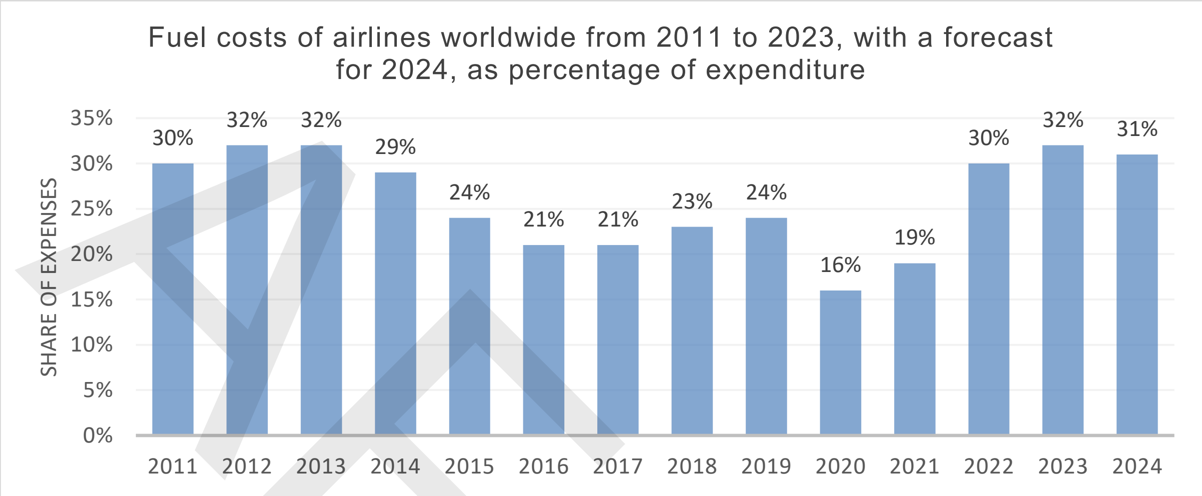


Figure 7 Fuel costs of airlines worldwide from 2011 to 2023, with a forecast for 2024, as a percentage of expenditure; Source: IATA, 2024a

Fuel costs are a significant but highly variable expense for airlines worldwide, specifically in recent years due to rising energy prices. As of 2023, the share of fuel cost in overall airline companies' spending was estimated to reach 32 % (IATA, 2024) (Figure 7).

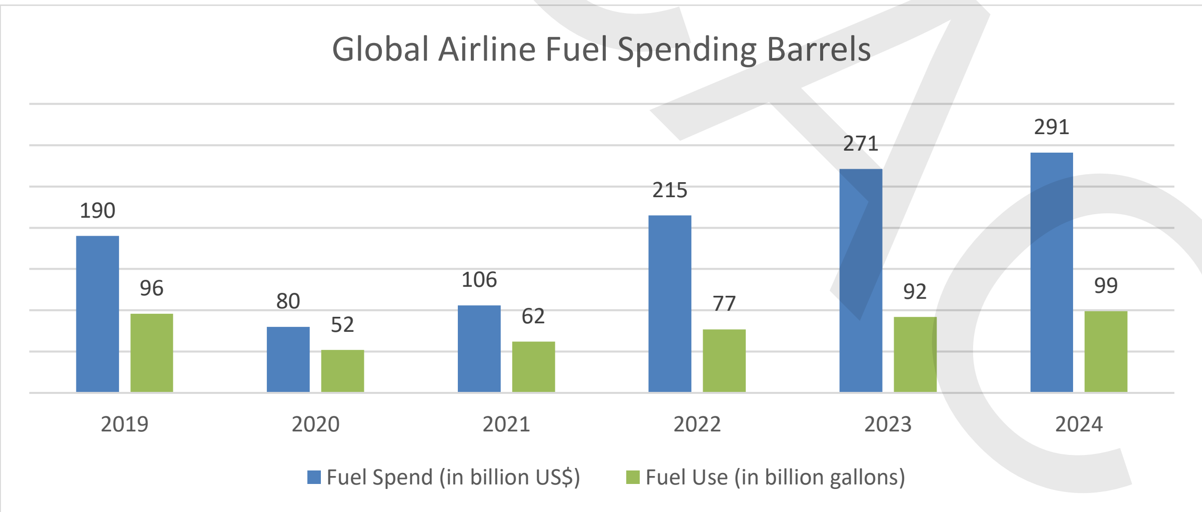


Figure 8 Global Airline Fuel Spending Barrels; Source: IATA, 2024b

Figure 8 above based on IATA figures shows that a similar fuel volume in 2023 cost 43% more than in 2019 and is forecast to reach a 53% increase when comparing 2024 to 2019. These increases are mainly attributed to Russia's war with Ukraine and the conflict between Israel and Palestine, the former of which measurably drove up prices of commodities linked to petroleum and natural gas. With both conflicts unlikely to cease soon, fuel prices are bound to stay at a higher level for the time being.

Historically, in 2021, the estimated average price per barrel of Brent crude oil in the aviation industry amounted to 69.6 euros. In that same year, airlines paid 19% of the total expenditure on fuel.

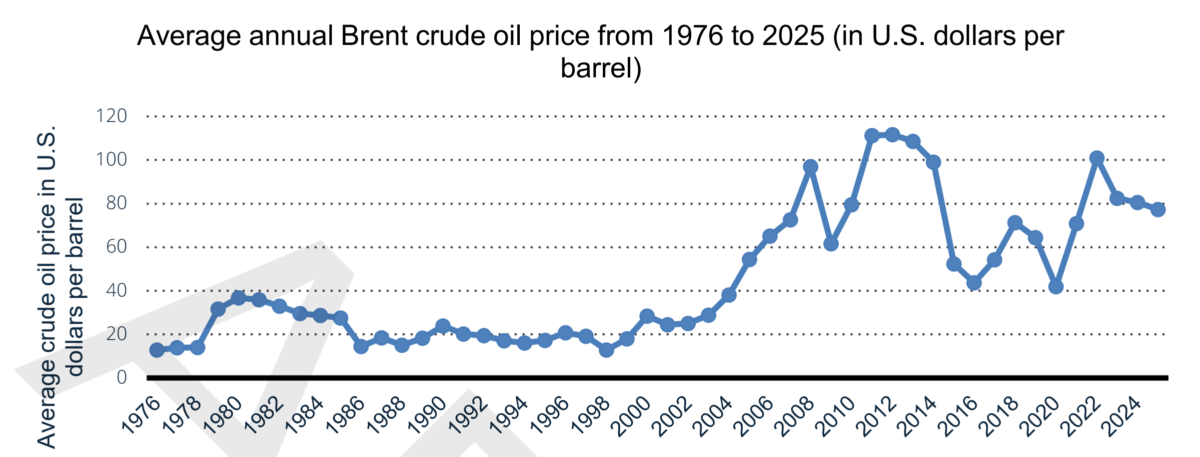


Figure 9 Average annual Brent crude oil price from 1976 to 2025 (in U.S. dollars per barrel); Source: Statista, 2025b

As of February 2025, the average annual price of Brent crude oil stood at USD 77.36 dollars per barrel (Statista, 2025b). This is some three U.S. dollars lower than the 2024 average (See Figure 9).

Brent is the world's leading price benchmark for Atlantic basin crude oils. Crude oil is one of the most closely observed commodity prices as it influences costs across all stages of the production process and consequently alters the price of consumer goods as well.

In the past decade, crude oil prices have been especially volatile. Their inherent inelasticity regarding short-term changes in demand and supply means that oil prices are erratic by nature. However, since the 2009 financial crisis, many commercial developments have greatly contributed to price volatility, such as economic growth in BRIC countries like China and India and the advent of hydraulic fracturing and horizontal drilling in the U.S. The outbreak of the coronavirus pandemic and the Russia-Ukraine war are examples of geopolitical events dictating prices.

Fuel costs are significantly higher in Africa than in the rest of the world and arise from constraints in supply, a lack of economies of scale, and high fuel taxes in most African countries.

Africa's low refining capacity means that aviation fuel is largely imported and often 30% more expensive than elsewhere.

Due to the geographic location of most African countries, fuel needs to be transported by road over long distances, which pushes up prices considerably. (Samunderu, 2024). This is especially the case for landlocked countries such as Uganda and Rwanda. Additionally, the small market sizes do not allow fuel companies to benefit from economies of scale, which is why they spread costs over relatively low fuel sales volumes and fewer customers, which drives up costs.

African airlines continue to pay the highest prices for aviation fuel for any region in the world, driven mainly by the existence of cartels in the supply chain and logistical obstacles. This translates into higher operating costs for African carriers and less competitiveness relative to other incumbents from elsewhere (Figure 10).

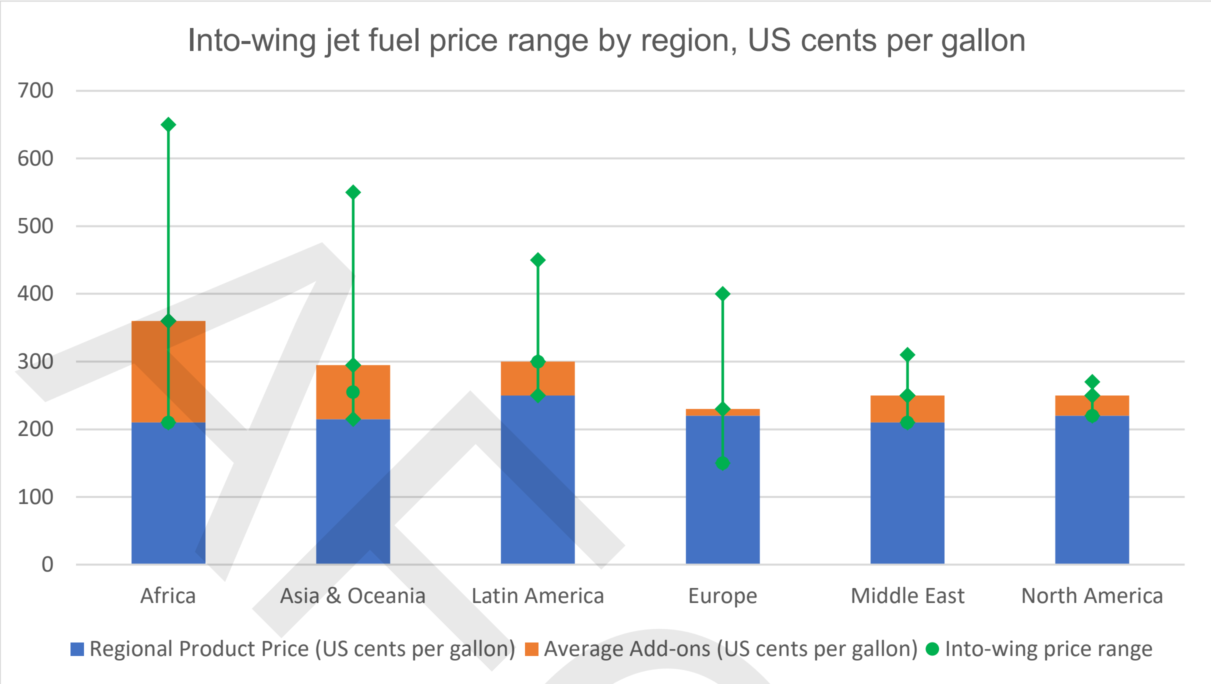


Figure 10 Into-wing jet fuel price range by region, US cents per gallon; Source: IATA, 2024c

According to data compiled by IATA (2024), as shown in Figure 10 of the week of October 18, 2024, African airlines are paying into-wing prices for fuel that are 2.4 times higher than their North American counterparts and 2.1 times what carriers from the Middle East, who have made huge inroads into the African market, have to pay for aviation fuel. The into-wing price is the all-inclusive cost an airline pays for fuel delivery to its aircraft. This cost varies significantly across regions. Jet fuel typically constitutes the largest operational cost for airlines, currently around 30% of total industry costs. Africa's low refining capacity means that aviation fuel is largely imported and often 30% more expensive than elsewhere, including in oil-producing countries.

It is important to note the following regarding fuel price behavioural patterns:

- Prices vary by region because of supply-demand dynamics at regional trading points. There are also sizeable regional variations in the add-on price, which comprises transport, storage, and into-plane fuelling costs. This variability results from the lack of competition among suppliers and complexities in regional logistics. Airports with reliable and developed supply chains and open access to their fuel infrastructure tend to have lower and more stable add-ons.
- Africa has the highest average into-wing fuel price globally, mainly due to limited supply competition, with governments or monopoly suppliers controlling the setting of into-wing prices at the airports in the region. Logistics challenges and limited access to the fuel systems are also responsible for the high prices. Airports showing high into-wing prices in other regions

generally face similar problems and challenges.

- With unequal access to mature fuel supply chains, certain airlines are already at a clear disadvantage with conventional fuel. From now on, it will be imperative to give SAF suppliers access to airport fuel systems since, as a drop-in fuel, it uses the same infrastructure as conventional aviation fuel. Regardless of their home base, all airlines should be able to participate on equal terms in the global SAF market, as they should in the global jet fuel market.

As of 2021, diesel and gasoil accounted for the highest consumption of refined petroleum products in Africa, making up a share of 43%. The second highest consumption of such products was gasoline with a share of 28%. Furthermore, the oil demand in Africa showed that petroleum distillates and gasoline were in high demand (Africa Energy Commission, 2022) (Figure 11).

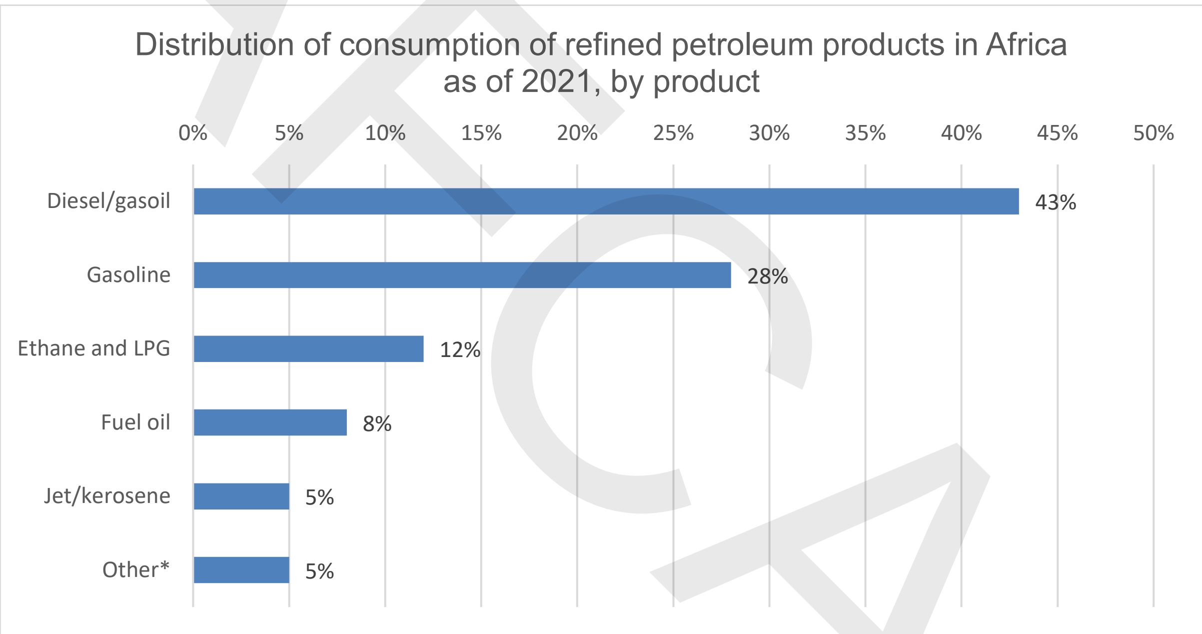


Figure 11 Distribution of consumption of refined petroleum products in Africa as of 2021 by product; Source: African Energy Commission, 2022

Given the peculiarities of the African market, however, fuel can constitute as much as 50% of operating costs for small African carriers that lack scale. Regions with higher fuel prices are disadvantaged in terms of their profitability and competitiveness.

This disparity and the associated disadvantages are likely to get worse as the industry transitions from conventional fuel to greener fuels. With unequal access to mature fuel supply chains, certain airlines are already at a clear disadvantage with conventional fuel. From now on, it will be imperative to give SAF suppliers access to airport fuel systems since, as a drop-in fuel, it uses the same infrastructure as conventional aviation fuel.

Finally, demand and passenger numbers on many intra-Africa routes are relatively low. This usually means that the route needs to be served by a smaller gauge of aircraft. This limits potential economies of scale and efficiencies of jets, which means higher prices.

Financing, Insurance, and Leasing

The global aircraft leasing market size was valued at USD 188.09 billion in 2023 and is projected to grow from USD 202.77 billion in 2024 to USD 295.18 billion by 2029. Figure 12 below illustrates this growth trajectory.

Europe dominated the aircraft leasing market (Figure 13). The growth of the region is attributed to the presence of a key player named Aercap. The company holds more than 50% of leased aircraft operating in the airline industry. Most lessors are based in Ireland due to its attractive tax policy and ease of doing business. Moreover, the region has witnessed a surge in demand for aircraft leasing due to the emergence of low-cost carriers in the region. Thus, higher growth numbers in terms of revenue are anticipated during the forecast period.

The market in North America is expected to witness moderate growth during the forecast period owing to ongoing headwinds of recession in the country, such as the U.S. economy. However, the airline industry in the region is now adopting leasing instead of buying. In addition, OEMs such as the Boeing Company have a wholly-owned subsidiary named Boeing Capital Corporation. Boeing Capital offers asset-backed lending and leasing, concentrating on assets that are critical to the core operations of Boeing customers.

Figure 12 below, illustrates the size of the global aircraft leasing market and gives a projection from 2021 through 2029. The global aircraft leasing market is projected to be worth 295.18 billion U.S. dollars in 2029.

Note: The projected value of the global aircraft leasing market 2021-2029

Figure 12 Size of the global aircraft leasing market from 2021 to 2029; Source: Statista, 2022

Besides higher fuel costs, African airlines pay more to lease planes than carriers in other regions. A five-year-old Boeing 737 might cost an African carrier up to USD 400,000 a month to lease, compared to USD 180,000 in Europe, because of local carriers' poor safety record and lengthy proceedings in the courts dealing with previous bankruptcies (Marsh, 2021). The jump in rental fees is another consequence of the global central bank's push to raise interest rates as surging inflation ends an era of cheap finance. Higher interest rates mean that the specialist companies that own and hire out aircraft fleets have more costly debt. Lessors must calculate how to pass on these borrowing costs to carriers that are already dealing with ballooning higher fuel and labour expenses.

However, the leasing landscape is shifting, and a bright picture is currently being painted for the leasing firms within the African continent (Financial Times, 2023). Dry leases are one of the more popular options within the African continent, where an aircraft is operated under the Aircraft Operating Certificate (AOC) of the lessor.

The use of leasing to finance aircraft can give airlines greater flexibility, allowing them to rotate their aircraft portfolios without taking residual value risk. Lessors also play a role in improving airline access to capital funding, whether for small airlines with insufficient cash flow to make their own acquisitions or more widely in more challenging times for the airline industry (Figure 13).

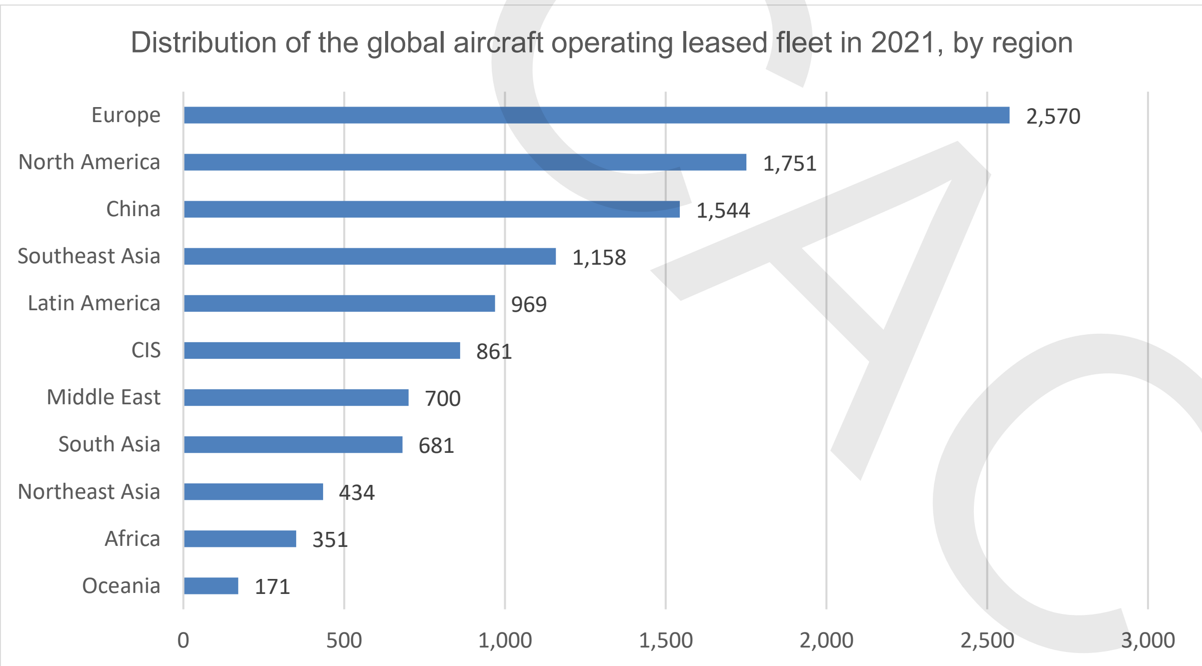


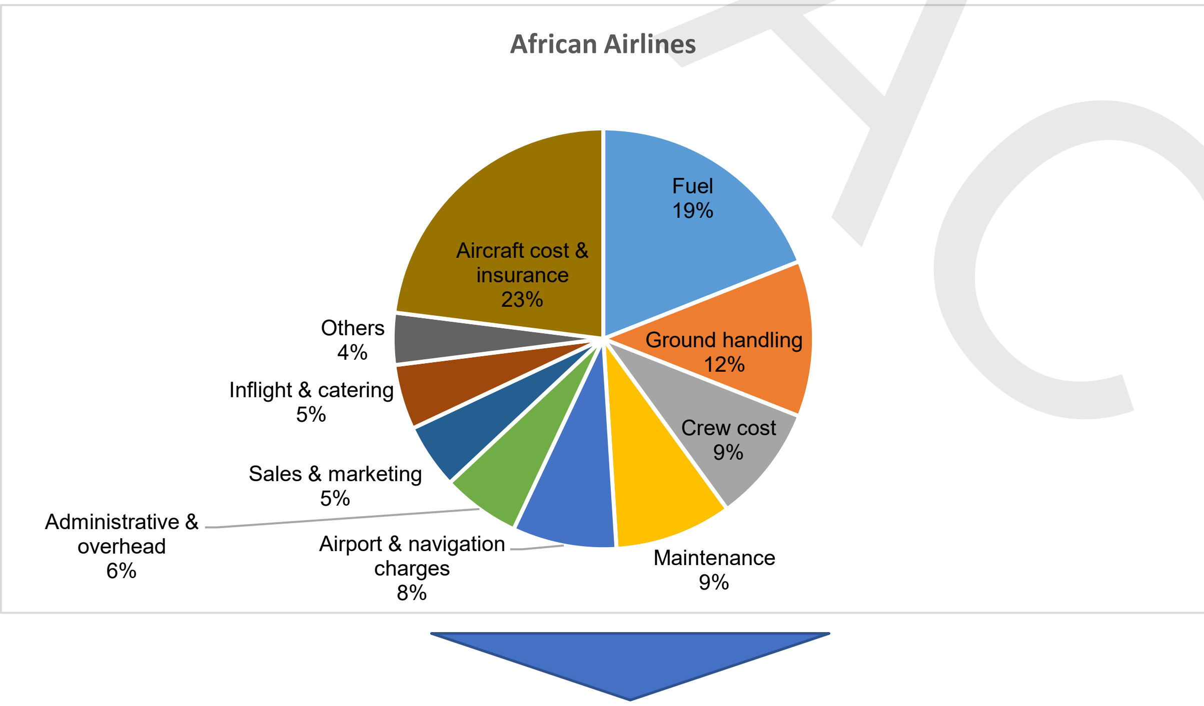
Figure 13 Distribution of the global aircraft operating leased fleet in 2021 by region; Source: Air Finance Journal, 2021

Insurance costs for African carriers can also be stratospheric due to the poor safety record of most airlines. Aircraft and insurance costs make up nearly a quarter of the total costs incurred, as shown by Heinz (Marsh, 2021). This is also verified by Figure 14, which shows the cost distribution of African airlines versus the cost distribution of the Association of European Airlines (Figure 15). The comparison of the African airline's costs versus the AEA is only a selected contrast and it is imperative that cost distribution is relatively different across other regions as well.

Distribution

The lack of technological development and Internet penetration means that African airlines make about 75% of their sales through Global Distribution Systems (GDSs). Samunderu (2019) details, “African airlines tend to pay higher commissions to travel agents and other middlemen than the world average. The commission payable to travel agents for domestic operations is typically about 7% of the ticket price”. "While Africa does have large populations and growing middle classes, the continent does not have the depth of Internet penetration to drive online sales, which are key to the European LCC model," says Roeland van den Bergh, senior analyst at the Centre for Asia-Pacific Aviation.

Travel agencies normally receive commissions from airlines, tour operators, accommodation establishments, and car hire companies in exchange for bookings. Global trends in this commission structure indicate dramatic changes, especially regarding airlines. Most of them have introduced a system of commission capping, whereby commission paid to travel agencies has been reduced and expectations are that it might even become zero in future. Against this background, as part of restructuring revenue streams, travel agencies have introduced a system of service fees over the years. It implies that clients will have to pay for services such as the preparation of quotations for national and/or international holidays or business trips. Such a fee structure will further exacerbate airfare prices on the continent. The argument based on introducing service fees is that a client should pay for a professional service consultation at a travel agency in the same way as he or she would for the medical profession, for instance.



Main cost driver: Fuel / Aircraft and insurance costs

Figure 14 Cost distribution of African Airlines; Source: Compiled by Samunderu based on AMENA Analysis 2022

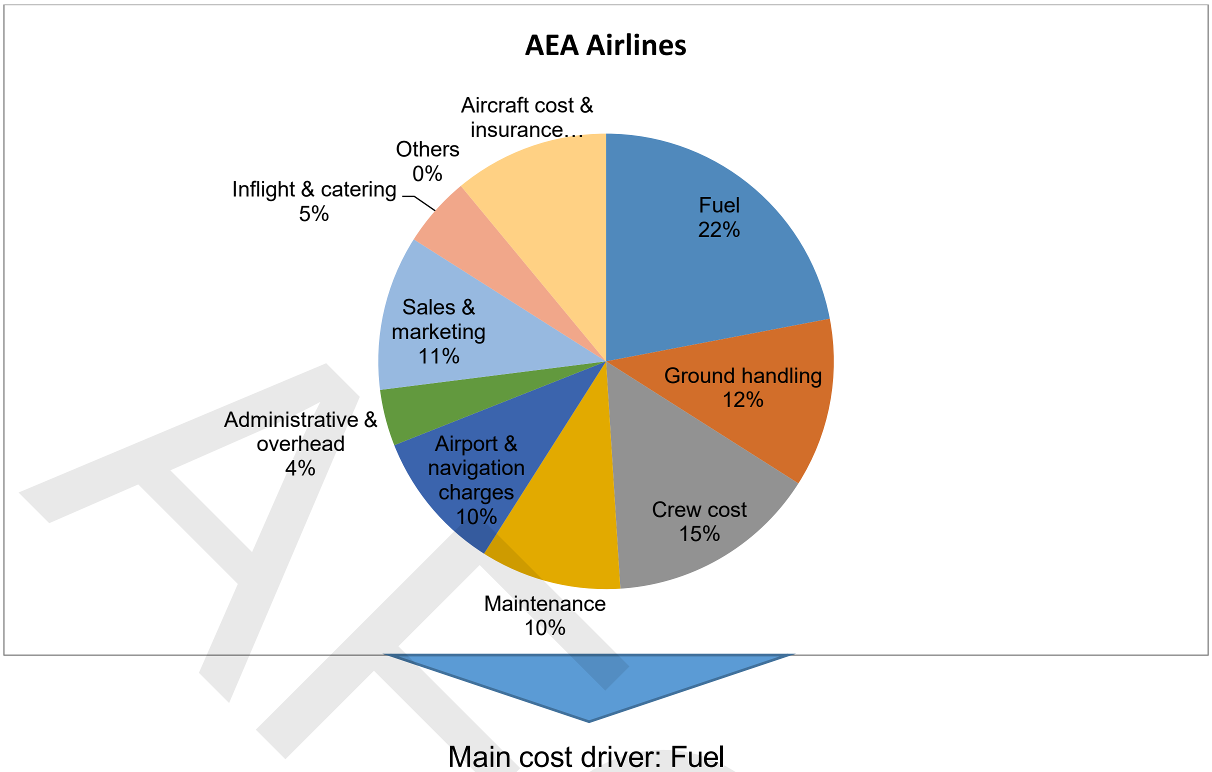


Figure 15 Cost distribution of AEA; Source: Compiled by Samunderu based on AMENA Analysis 2022

Since Africa represents only 2.5 % of the world air transport market a number of ground-handling service providers see a huge market opportunity to exploit. The ground-handling services market size is expected to see strong growth in the next few years. It will grow to USD 39.51 billion in 2029 at a compound annual growth rate (CAGR) of 7.4% (Business Research Company, 2025). (See Figure 16 below). The growth in the forecast period can be attributed to environmental sustainability focus, shifts in airline business models, airline fleet expansion, globalisation of air travel, and airport infrastructure investments. Major trends in the forecast period include digitalization and automation, personalised services, sustainability initiatives, enhanced security measures, adaptation to new airline business models, data analytics, and predictive maintenance.

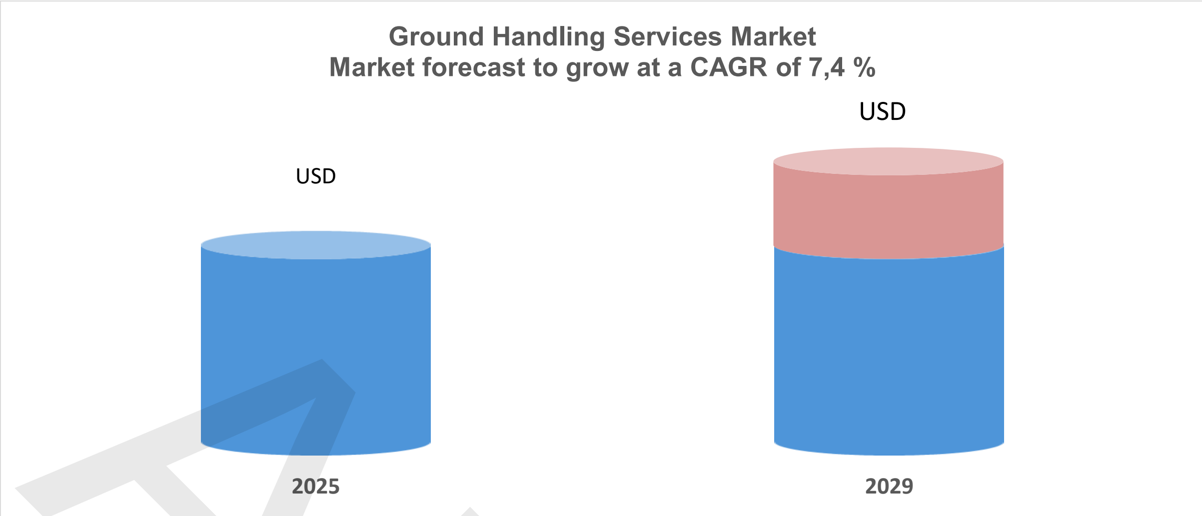


Figure 16 Ground Handling Service Market Forecast 2025-2029; Source: Business Research Company, 2025

According to Statista (2025c), on a global level, the demand for ground-handling services will continue to grow even though the African region is relatively behind other regions. See Figure 17 below.

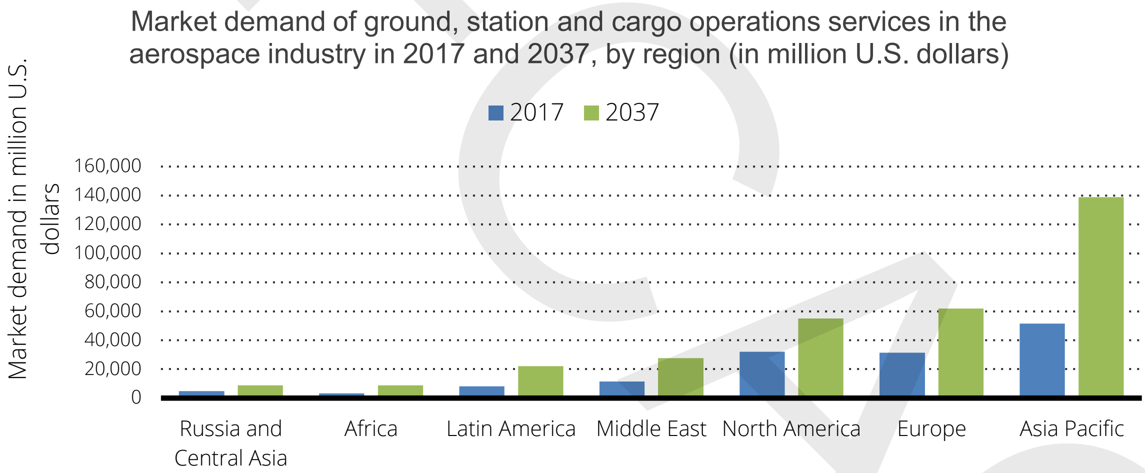


Figure 17 Market demand of ground, station, and cargo operations services in the aerospace industry in 2017 and 2037 by region (in million U.S. dollars); Source: Statista, 2025d

Indeed, there are significant opportunities and threats to doing business in the aircraft ground handling environment throughout the African region. According to AFRAA (2024), the standards of ground handling at airports in Africa vary widely due partly to the lack of inadequate oversight by the responsible authorities. Infrastructure and facilities for handling passengers/cargo in many airports are deemed adequate or limited, subsequently having a spillover effect on quality standards and handling costs. Overall, handling charges and fees in African airports are among the highest in the world. Ground handling services should be provided on a competitive basis, and ground handling charges should be determined by the market. If specific conditions do not allow competition, there must be meaningful consultation with the airlines. Thus, in compliance with ICAO's policies, airport operators should not impose excessive concession fees on ground service providers as revenue from ground handling concession must not be maximised.

Despite the critical role they play in the aviation industry, aviation ground handling companies in Africa, over the years, may have been consigned to the short end of the stick by factors ranging from limited regulation of the sub-sector, cutthroat competition, and unwillingness of local and foreign airlines to pay the right price for their services.

One of the major threats that ground handlers face in Africa is that the concession to operate at airports is provided by the Airport Authority, and it is for a set period. This impacts the long-term investments in ground support equipment (GSE) as it is then limited to the concession period granted. For example, in South Africa, ground handling contracts are often granted on an open tender basis. The Airport Authority sets the standards required, and potential ground-handling companies compete/bid for the right to operate at airports. However, despite this business opportunity, high handling charges and fees from African airport operators remain a challenge.

It is observed that ground handling rates in Nigeria are the lowest in all African countries, if not the world, and this has been a thorny issue for over a decade. This includes domestic and international airlines.

Below are rates collected from the other African countries:

Guinea – USD 1,673 (narrow-body) and USD 4,715 (wide body) aircraft; Senegal – USD 2,250 (narrow-body) and USD 5,259 (wide body); Cameroon – USD 1,400 (narrow-body) and USD 4,500 (wide body); Sierra Leone – USD 2,250 (narrow-body) and USD 5,250 (wide body); Ghana – USD 1,500 (narrow-body) and USD 4,150 (wide body) (Aviation metric.com, 2025)

Ground handling operations

The great pointer to the current state of the industry in Africa is that airline operation costs are high due to excessive high fuel costs, high costs of maintenance, and high taxes, fees and charges, which all contribute to the non-profitability of the airline industry (See Figure 14).

African airlines face fixed and variable costs that are much higher in comparison to those of similar-sized airlines in other world regions. Higher operating costs, with aeronautical charges and fuel costs among the most expensive in the world, make it especially difficult for low-cost airlines to hold on to their lean business strategy (Schlumberger, 2010).

The small size of African carriers translates further into a distinct lack of bargaining power with large fuel companies (Samunderu, 2019). Most African airlines also do not employ fuel price risk management and hedging techniques, which exposes them to unpredictable volatilities in the fuel price. Additionally, high taxes on jet fuel make it an average of 21% more expensive for African airlines to buy jet fuel than for airlines elsewhere in the world (IATA, 2022).

The Imperative of Optimal Transport Policy Development

The fundamental aim of a transport policy should be the facilitation of an optimal evolution of a nation's transportation infrastructure. Such development must occur in harmony with the country's overall economic progress, ensuring a balanced integration between the transportation sector and other economic domains. Furthermore, it is crucial that within the transportation sector itself, a coherent and unified advancement of various transport modes is achieved. This approach is essential to reduce transportation-related costs to the economy. Specifically, the pricing strategy for civil aviation, akin to other transport modes, ought to pursue these overarching goals.

The International Civil Aviation Organisation (ICAO) provides guidance on the pricing for airport and air navigation services, focusing solely on the cost-of-service provision without delving into the complexities of long-term or short-term marginal costs (ICAO, 2000). Given the imperative for non-discriminatory charges, it is suggested that costs should reflect an average cost basis. Moreover, the ICAO guidelines recommend the potential for government and regulatory authority intervention in specific instances applicable to both airlines and airports as well as air navigation services. This intervention is crucial to regulate airline pricing to prevent excessive competition among operators and to manage the potential for monopoly power abuse in airport and air navigation services.

Civil aviation encompasses two primary services: airline services, operated through mobile aircraft, and ground-based airport and air navigation facilities and services that support airline operations. Globally, these services are often provided by distinct entities, each adhering to varied principles and practices regarding pricing. Consequently, the pricing mechanisms for these services necessitate separate consideration.

On the other hand, the regulatory framework for air transport has evolved from the Chicago Convention, permitting states to follow their national policies in airline pricing. In international air services, where multiple states are involved, airline prices are determined through bilateral negotiations under air services agreements. These agreements outline policies on tariffs, applicable routes, factors for establishing tariffs, and government approval processes for airline tariff proposals, specifying circumstances for government intervention in tariff development.

Although ICAO does not directly regulate airline tariffs, it offers guidelines and models for tariff clauses to assist states (Table 3). These guidelines offer various approaches for tariff approval, including "double approval," "country of origin," and "double disapproval" strategies, and sometimes specify a "tariff zone." A notable recommendation from ICAO is against charging fares that do not cover the service costs, indicating potential unfair competition.

ICAO Policy Aspect	Description
Distinction Between Charge and Tax	Charges are for recovering costs of facilities and services for civil aviation, while taxes raise general government revenues for non-aviation purposes.

ICAO Policy Aspect	Description
Policies and Guidance on Charges	Provided in the Statements by the Council on Charges for Airports and Air Navigation Services (Doc 9082) and policies on emission-related charges and taxes (Council Resolution, 1996).
Taxation of Fuel, Lubricants, and Supplies	National or local taxes on fuel and other technical supplies for international air transport can adversely impact economic competitiveness. Article 24(a) of the Convention provides exemption from duties and charges for such supplies retained on board. Many States are exempt from taxation or refund taxes on fuel and lubricants taken on board for international flights.
Taxation of Income and Movable Property	To prevent multiple taxation, the earnings of international air transport enterprises and associated movable property should ideally be taxed only in the State of the enterprise's fiscal domicile. This principle is often enacted through reciprocal agreements or national legislation providing exemption based on reciprocity.
Taxes on Sale and Use of International Air Transport	Taxes on the sale or use of international air transport, such as taxes on gross receipts, tickets, and cargo air waybills, can hinder the industry's growth by increasing costs for operators and consumers and causing inconvenience. The Council advocates for the reduction and eventual elimination of such taxes to facilitate the expansion of international air travel.
Notification and Transparency	Contracting States are encouraged to notify ICAO of the extent to which they levy taxes on international air transport and their plans for alignment with the principles of ICAO resolutions, with subsequent changes to be informed to the Organisation.
Commentary on Tax Exemption and Reciprocity	The exemption from customs and other duties on fuel and technical supplies is based on reciprocity, with encouragement for general application regardless of reciprocity. Such exemptions apply to all aircraft engaged in international operations.
Avoidance of Multiple Taxation	The Resolution supports measures to avoid multiple taxation on income and movable property of air transport enterprises, with encouragement for prompt bilateral negotiations or legislative action to implement reciprocal exemptions.
Sales and Consumption Taxes	Sales taxes or VAT on tickets for international air transport can be zero-rated rather than exempt to avoid increasing travel costs. This is distinct from airport or passenger service charges which are defined as charges and aim to recover costs for aviation services or facilities.

Table 3 ICAO's policies on taxation in the field of aviation; Source: ICAO, 2000

The responsibility for negotiating international tariffs often lies with airlines, subject to government approval. The International Air Transport Association (IATA) plays a key role in facilitating these negotiations through its tariff coordination conference system. This system, which has evolved to be more flexible and transparent, divides the world into geographical areas for tariff coordination, offering a multilateral platform for determining international tariffs. This approach has significantly lightened the burden on governments, enabling a streamlined process for international tariff negotiations and supporting a global interlining system (Kesharwani, 2001).

ICAO Principles and Guidelines on Airport and Air Navigation Services Charges

The International Civil Aviation Organisation (ICAO) outlines essential principles regarding airport and air navigation services usage and charges in Article 15 of the Chicago Convention. These principles emphasise uniformity, non-discrimination, and the prohibition of charges for mere overflight, reflecting concerns over potential monopolistic abuses.

Further detailed policy guidelines are provided in ICAO's Council Statements, advocating for fairness and equity in the distribution of costs associated with airport and air navigation services. Key recommendations include ensuring that users bear a fair share of operational costs, excluding charges for unused facilities, maintaining non-discriminatory charging practices, and preventing cost under-recovery from being passed onto other users. Airports are encouraged to generate revenues sufficient to cover operating costs and contribute towards capital improvements, with a stipulation for user consultation prior to significant charging system alterations or rate increases. Similar principles apply to air navigation services charges.

While ICAO guidelines pertain primarily to international airports and services, they often influence domestic service charges by extension. Although the guidelines carry a moral weight rather than binding legal obligation, their widespread endorsement and practical value in preventing discrimination and disputes underscore a strong impetus for states to align their charging practices with these principles (Kesharwani, 2001).

Air Navigation Service Charges in Africa

According to AFRAA (2020), there is no “one size fits all” model policy in terms of Air navigation service charges in Africa. This means that the different Air Navigation Service Providers apply different rates from one country to another, except for the Agency for Aerial Navigation Service in Africa (ASECNA), whose formulas are common for 17 member states in western and central Africa, and in the Indian Ocean.

ASECNA Controlled Airspace Kenya

The country has opted for the following formula: *C = R x D x (MTOW/50)^1/2*

With R = 0.4831

D = 185, a minimum of 300km and a maximum of 500 km for international traffic

Example:

A flight operated in a B737 with an MTOW of 70 tons, operating a distance of 100 nm (185 km), En-route charges will be:

C = R x D x (MTOW/50)1/2 = USD 219.71 With
R = 0.4831

D = Min (500, Max (D, 300)) = 300

MTOW = 70

Ethiopia

In Ethiopia the charge depends on the MTOW and the distance following this scale:

WEIGHT IN LBS	DISTANCE IN NM			
	below 200	201 - 400	401 - 1000	above 1 000
BELOW 10 000	7.51	7.51	7.51	7.51
10 000 – 50 000	16.24	32.48	56.84	81.2
50 001 – 120 000	32.48	64.96	113.68	162.4
120 001 – 300 000	40.6	81.2	142.1	203
ABOVE 300 000	48.72	97.44	170.52	243.6

Example:

A flight operated in a B737 with an MTOW of 70 tons (155000 lbs.), operating a distance of 100 nm; En-route charges will be USD 40.60.

Rwanda

The scale in Rwanda is as follows:

AIRCRAFT WEIGHT (KG)	CHARGE PER FLIGHT (USD)
UP TO 3 500	20
3 501 TO 10 000	30
10 001 TO 20 000	35
20 001 TO 95 000	100
95 001 TO 150 000	180
150 001 TO 273 000	250
ABOVE 273 000	310

Example:

A flight operated in a B737 with an MTOW of 70 tons, En-route charges will be USD 100.

Mozambique

Mozambique has opted for the following scale:

AIRCRAFT WEIGHT (KG)	CHARGE PER FLIGHT (USD)
UP TO 5 700	23
5 701 TO 30 000	56
30 001 TO 43 000	162

43 001 TO 100 000	280
100 001 TO 190 000	342
190 001 TO 300 000	435
ABOVE 300 001	540

Example:

A flight operated in a B737 with an MTOW of 70 tons, En-route charges will be USD 280.

Zambia

En-route charges are calculated using the formula below:

Charge = *20 x (D/100) x (MTOW/50)^1/2*

Where D is the distance

Example:

A flight operated in a B737 with an MTOW of 70 tons, operating a distance of 100 nm (185 km), En-route charges will be:

C = 20 x (D/100) x (MTOW/50) ^1/2 = **USD 43.779**

With D = 500 MTOW = 70

According to RDC (2024), there are at least 1000 airports with new charges available in 2024, including African airports. For example, in Ghana, the imposition of USD 7 per passenger on each international airline ticket sold and remitting the same to the government agency as a luggage fumigation charge has reinforced interest in Africa as one of the continents with high airport charges. Niger, Liberia, Guinea Bissau, Senegal, Bangui, Sierra Leone, the Republic of Congo, and Nigeria top the list of African countries with high airport taxes.

Niamey, Niger Republic tops the list by charging passengers USD 162 on regional departure in African airports, followed by Monrovia (Liberia) USD 145; Guinea Bissau USD 137; Dakar, Senegal USD 116; Douala, Cameroon USD 115; Bangui USD 111; Freetown, Sierra Leone USD 109 and Nigeria USD 100. International travellers at Bamako, Mali, Antananarivo, Madagascar, Cotonou, Benin Republic Kinshasa, and Zaire pay USD 99; USD 91, USD D88, and USD 77, respectively.

In Accra, Ghana it costs USD D77, N'djamena USD 68, Djibouti USD 67, Cairo 467, Lome, Togo USD 62, Entebbe, Uganda is USD 57. Charges by other African nations oscillate between USD 50 and USD 3. While the average taxes and fees in Africa paid by passengers is USD 64, passengers are charged USD 23 in Europe and USD 29.65 in the Middle East despite the fact that traffic is much more significant in these regions. In Europe, only one airport charges passengers more than USD 100, and four charges more than USD D50. The reason for this high amount in London is the Air Passenger government tax, which is GBP 78 (USD 101) for long-haul flights.

In Nigeria, a range of charges applied at both local and international airports has contributed to making the country one of the more expensive aviation markets in Africa. These cumulative fees—reported to be, on average, twice as high as those in some European and Middle Eastern countries—are considered a factor influencing the pace of growth in the sector. Local airlines face significant financial pressures under the current structure, which includes up to 35 different charges. According to airline representatives, these charges may account for between 38% and 65% of their total revenue.

Finally, on average, across the globe, all 1,014 airports with new charges in 2024, airports' charges are +4.7% higher than the same period last year - with inflation in mid to high single digits across the world last year, this rate of increase is not unexpected (RDC, 2024). The African region has seen an increase of 4.7% in comparison to 2023 (Figure 18).

However, not all airports and regions' charges change by the same amount - variations in regulatory structures, the process, and timeline for setting user charges, as well as the local inflationary and operational variances will drive different outcomes.

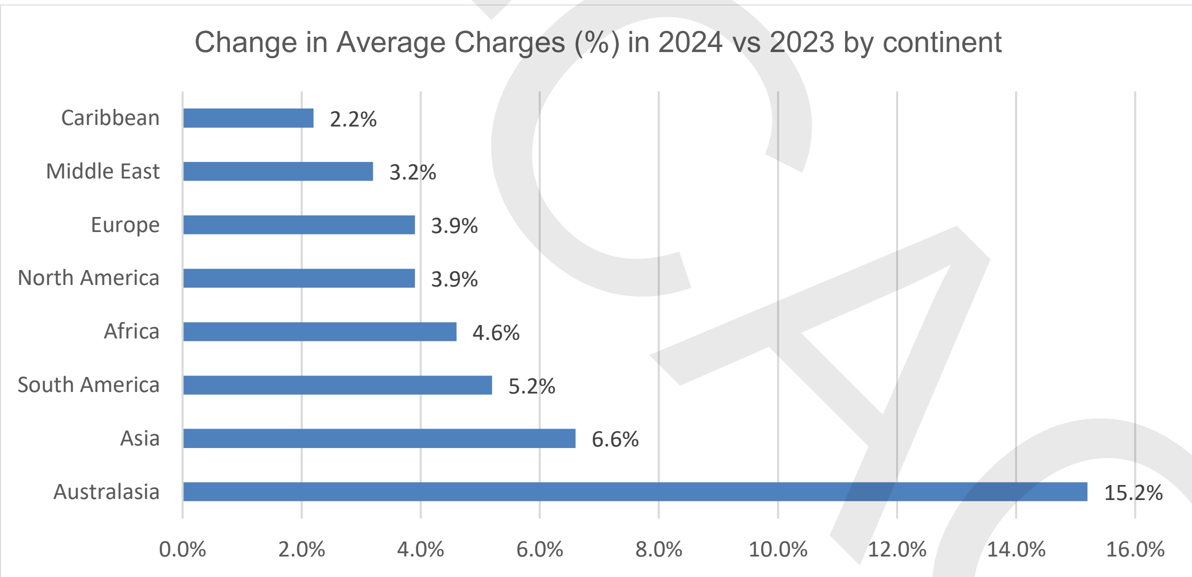


Figure 18 Change in Average Charges (%) in 2024 vs 2023 by continent; Source: RDC, 2024

Operational Costs and Taxes in African Aviation

Both stakeholders and various sources in the literature (Sylva & Amah, 2021; Gabriel, 2024, Samunderu, 2024) have highlighted the significant operational costs faced by airlines in Africa. Fastjet, for instance, reported that fuel prices in Africa are approximately 20-30% higher than in other parts of the world. Additionally, lease costs are estimated to be about 20% higher in Africa compared to Europe. Arik Air emphasised that aircraft leasing financing is more expensive in Africa, particularly in Nigeria, due to the perceived continent or country risk by banks (ICA, 2014).

Aviation is often considered a high-revenue industry across Africa, leading to the imposition of high taxes, fees, and charges. The ease of aviation tax collection makes it a convenient source of funds for governments. The lack of proper regulatory oversight, coupled with a lack of transparency and consultation, has resulted in distorted markets, damage to carrier commercial viability, growth limitations, and diverted finances.

Based on historical literature (ICA, 2014), the challenges and complexities facing the aviation industry in terms of taxes, charges, and fees continue to pose a challenge to the potential growth of driving towards an open skies market because the continent policymakers have not so far agreed on standardised regimes governing taxes, charges, and fee structures. (See Table 4 below).

Cost Area	***Challenges and Factors***
Aviation Fuel Costs	Poor supply, low competition, and high taxes contribute to excessively high fuel costs for African airlines.
Taxes, Fees, and Charges	High passenger departure taxes, additional imposed costs (e.g., withholding tax), and airport fees contribute to overall high financial burdens for airlines.
En-route Navigation Charges	Despite subpar service levels, African airlines often face international-level charges for en-rout navigation.
Internal Operating Costs	Elevated staff costs are influenced by a lack of competitive pressure, a desire to maintain employme levels (especially in state-owned airlines), and relatively low utilisation of aircraft and staff operating hou compared to international benchmarks.
Financing Costs	High financing costs for aircraft due to perceived risks by leasing companies and financiers, includi concerns about poor commercial performance and difficulties in recovering aircraft assets in case of no payment of lease/finance charges.

Table 4 Challenges and Factors; Source: ICA, 2014

Previous analyses by IATA (2019) and AFRAA (2020) reveal that the ECOWAS region exhibits a high level of taxes and charges, suggesting a heavier financial burden on air travel than other African regions (Figure 19). Interestingly, Central Africa shows a relatively balanced distribution of charges across international, regional, and national categories. On the global stage, Europe stands out with notably high international charges, which could reflect the higher operational costs and taxes associated with the dense air traffic and advanced airport infrastructure in the region. Conversely, Asia demonstrates lower average total charges, indicating a more cost-competitive environment, potentially fostering greater air travel demand.

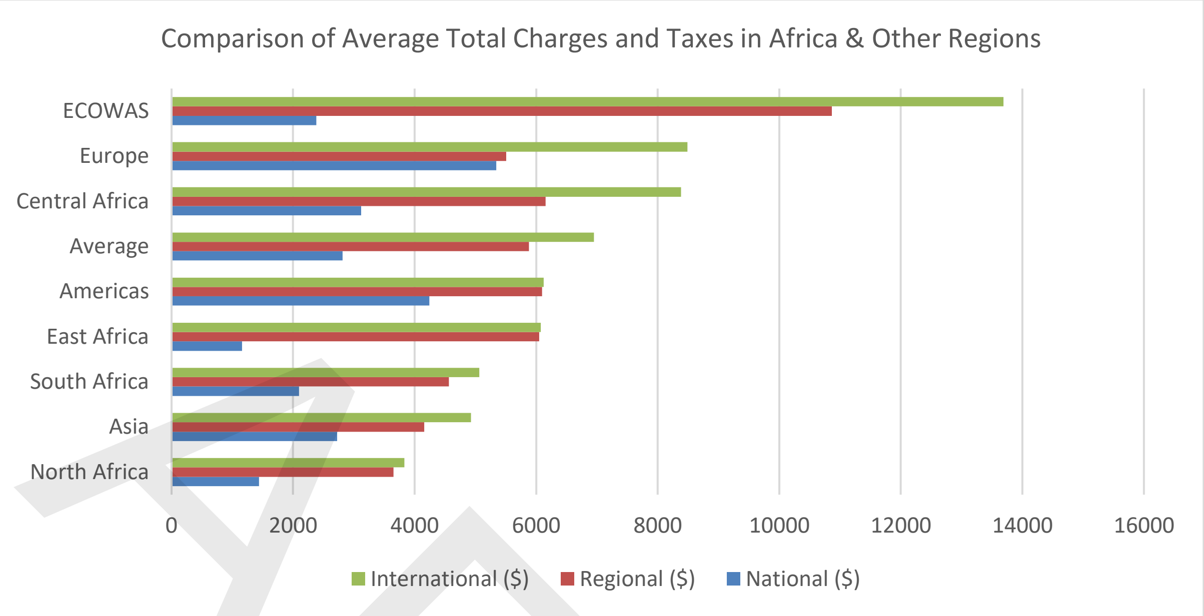


Figure 19 Comparison of Average Total Charges and Taxes in Africa & Other Regions; Source: IATA, 2019

LITERATURE REVIEW

This section of the study focuses on examining a compendium of related studies on the impact of aviation taxes, charges and fees. In order to encapsulate a holistic perspective, the literature in this section is designed to give the study a level of robustness by drawing perspective parallels of taxes, charges, and fees not only from an African perspective but also from other regions. This would ensure a level of theoretical richness in terms of developing arguments that tend to assess the impact of aviation taxes, charges, and fees. This compendium will explore published studies, reports, and academic literature in order to synthesise the different lenses used to assess aviation taxes, charges, and fees.

Visa Fees in Africa

Visa-free travel within the continent has long been an aspiration for those promoting pan-African values and is seen as vital for economic cooperation. Ghana is now the fifth African country to offer this to travellers from the rest of the continent. Rwanda, Seychelles, The Gambia, and Benin are the others. This is a key fundamental next step to the AfCFTA and the workings of the largest trading bloc in the world.

Visa Openness Index

Visa openness refers to the ease with which visitors are authorised to enter their country of destination. A more **visa-open** country has a more liberal or relaxed visa policy for visitors, meaning that visitors either do not need a visa to enter its territory or can obtain a visa upon arrival. A more **visa-restrictive** country requires visitors to obtain a visa before they travel. Visitors might obtain the visa from an embassy, a consulate, or another source. Many countries (E.g. Kenya, Gabon, Tanzania) have implemented electronic visa (e-visa) systems, adding a measure of convenience but still requiring the visa application process to be completed ahead of travel. All the visa fees vary by country (Visa Openness Index, 2024).

In addition, several African countries are working on developing their own e-visa systems. Algeria, the Central African Republic, Chad, Congo, and the Central African Republic plan to launch their e-visas in the near future (Visa Openness Index, 2024).

The African Visa Openness Index (AVOI) uses a methodology where percentage scores are assigned, and this generally relates to the share of African citizens that a country's particular visa policy applies to or, in the case of visa reciprocity, the proportion that a country's visa policies are reciprocated by every other country within the region.

According to the Visa Openness Organisation (2025), the AVOI score for a country is calculated by aggregating the individual scores for the country's visa policy as applied towards the citizens of every other African country. Here, the methodology primarily differentiates between policies that require travellers to apply for and obtain a visa ahead of travel, where travellers have the option of obtaining a visa on arrival at the port of entry in the destination country, and travel scenarios where entry is permitted without the requirement for a visa.

Scores and rankings. AVOI scores range from 0 to 1, where 0 applies to a country with the most restrictive visa policies (that require a visa to be obtained ahead of travel by all travellers), while a score of 1 applies when a country has removed visa restrictions for all other African citizens.

The higher a country's index score (the closer to 1), the more "visa-open" the country is and the higher it ranks on the AVOI.

Categories and weightings. To calculate each country's score, the AVOI assesses the visa policy each country applies to the citizens of each of the other 53 countries on the continent and classifies each policy into one of three categories. The AVOI gives each category a weighting.[16] See Table 5 below

Category	Weighting
Visa before travel	0
Visa on arrival	0.8
Visa-free	1.0

Table 5 Category and Weight of AVOI; Source: Visa Openness Organisation, 2025

According to the AVOI Report (2024), several countries have implemented visa policy changes. Some have been bold in instituting positive visa reforms, which have resulted in tangible progress towards a more open continent. Many have involved bilateral changes in visa policy, often on a reciprocal basis and implemented in a seemingly coordinated manner. In some instances, policy changes have been

[16] **Formula.** AVOI score = [(% of African countries whose nationals must obtain a visa before travelling × 0) + (% of African countries whose nationals may obtain a visa on arrival × 0.8) + (% of African countries whose nationals are not required to obtain a visa × 1)].

more nuanced while still resulting in tangible benefits for those directly affected, especially on the introduction of e-visas.

2024 saw important changes in AVOI scores. Of 54 countries on the continent, 17 have improved their AVOI score over the past year, building on the 15 countries that showed an improvement in the last edition. Twenty-nine (29) countries' scores remain unchanged (2023: 35), while eight countries score lower in 2023. The net effect of these changes has been a slightly lower aggregate score than in 2023, down from 0.485 (2023) to 0.479 (2024). See Figure 20 below.

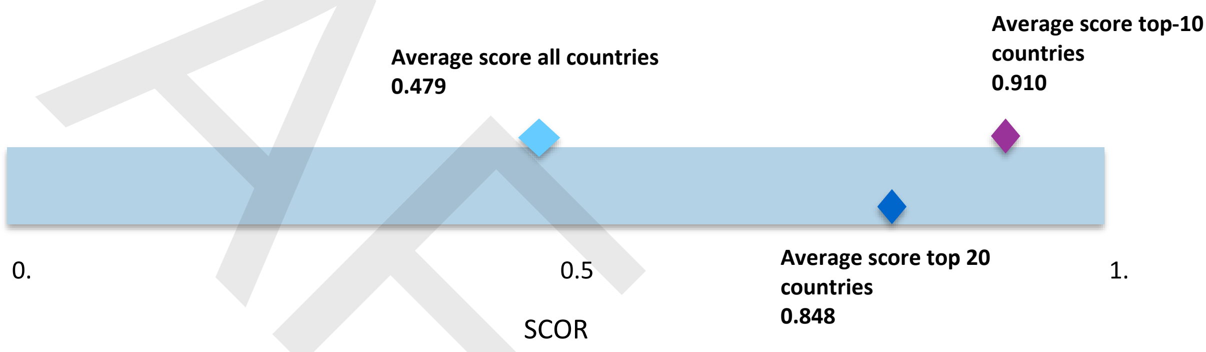


Figure 20 Average AVOI score 2024; Source: Visa Openness Index, 2024

For a more comprehensive AVOI, see Table 6 below. Table 6 highlights varying differences in visa scores based on how open or restrictive African countries are when it comes to visa requirements.[17] As noted here, there is no standardised model for visa fees and requirements as each member state stipulates its own policy on immigration issues. Although some policy implementations have been done to allow visa-free movement (e.g., Ghana), impediments remain due to the non-existing standardised fees model framework aimed at establishing a harmonised model.

	SCORE	RANK
Benin	1.000	1
Seychelles	1.000	1
The Gambia	1.000	1
Rwanda	1.000	1
Ghana	0.868	5
Nigeria	0.864	6
Cabo Verde	0.864	6
Guinea-Bissau	0.849	8
Mauritania	0.830	9
Mauritius	0.826	10
Burundi	0.823	11
Mozambique	0.815	12
Sierra Leone	0.811	13
Djibouti	0.800	14
Comoros	0.800	14
Senegal	0.792	16
Madagascar	0.785	17
Somalia	0.785	17

[17] Note: Scores range from 0 –1 (highest.

Ethiopia	**0.732**	**19**
Tanzania	**0.706**	**20**
Namibia	0.653	21
Zimbabwe	0.472	22
Malawi	0.472	22
Zambia	0.430	24
Côte d'Ivoire	0.415	25
Tunisia	0.396	26
Uganda	0.396	26
Mali	0.392	28
Guinea	0.377	29
South Africa	0.377	29
Angola	0.358	31
Niger	0.340	32
Burkina Faso	0.321	33
Botswana	0.321	33
Eswatini	0.321	33
Lesotho	0.302	36
Togo	0.283	37
Chad	0.283	37
Liberia	0.264	39
Central African Republic	0.245	40
Congo, Rep.	0.215	41
Gabon	0.170	42
Morocco	0.151	43
São Tomé and Príncipe	0.151	43
Congo, Dem. Rep.	0.121	45
Kenya	0.113	46
Cameroon	0.113	46
Algeria	0.113	46
Egypt	0.106	49
South Sudan	0.087	50
Eritrea	0.068	51
Equatorial Guinea	0.038	52
Libya	0.038	52
Sudan	0.030	54
Western Sahara	-	
0.0 0.2 0.4 0.6 0.8 1.0		

Table 6 Visa openness in Africa 2024: Country scores and rankings; Source: Visa Openness Index, 2024

The AU recognises eight RECs and considers them the building blocks of the broader continental integration initiative. This approach ensures that these RECs remain the engine rooms advancing deeper integration and that the progress made is elevated to the continental level. When it comes to visa issues however, the performance disparities are wide, and the pace of regional integration is notably different. The regional protocols and implementation also limit the progress of continental-wide harmonisation of visa fees and complete freedom of mobility of African citizens (Samunderu, 2024). However, at the REC level, ECOWAS offers fewer visa restrictions to its citizens in comparison to other RECs. See key highlights above.

- ECOWAS (99%) remains the leader in visa-free reciprocity and improved slightly over 2023, although political developments remain a concern.
- AMU (70%) has seen a significant improvement in visa-free reciprocity (2023: 60%).

- SADC (60%) records an unchanged visa-free reciprocity score, with a slight improvement in the visa-required metric (fewer visa-ahead-of-travel scenarios).
- EAC (54%) records a lower score (2023: 71%), mainly due to Somalia (a full EAC member since early 2024) requiring a visa on arrival from all travellers. The region would otherwise have maintained an unchanged visa-free reciprocity score.
- CEN-SAD (34%) sees a slight improvement in visa-free reciprocity (2023: 32%), with fewer member states now requiring a visa from each other's citizens ahead of travel.
- ECCAS (33%) shows a slight improvement in visa-free reciprocity (2023: 31%) following a decrease where visas are required ahead of travel.
- COMESA (17%) has lower visa-free reciprocity (2023: 21%), along with a slight decline in the visa-on-arrival reciprocity metric.
- IGAD (14%) sees lower regional visa-free reciprocity and higher scores for visa-on-arrival reciprocity within the REC, and unchanged visa-required reciprocity (Visa Openness Index, 2024).

According to the Visa Open Index Report (2024), notable fractures in the overall set-up of the immigration framework in terms of a common concept have hindered the full progress of harmonisation and accelerated the AfCFTA agenda. However, the RECs bilateral initiatives sometimes compensate for the lack of regional commitments or progress on the implementation of protocols. Some of these initiatives could be more progressive, like the case of Namibia and Botswana, who signed an agreement in 2023 to simplify their mutual border controls by allowing each other's nationals to pass through their common border using only their national identity document. Similar examples occur elsewhere, for example, within the EAC. As visa policies continue to evolve, it is imperative to note that the freedom to move across borders remains a fundamental pillar of the continent's integration agenda. Hence, paradoxically, there is still a misalignment between countries' visa openness and support for facilitating intra-African travel in the context of a broader regional integration 2063 agenda.

Passenger Taxes

In Africa, a significant portion of aviation-related taxes and fees is borne by passengers, subject to a specific fiscal framework. According to regulations set by the ICAO, fuel, constituting at least 24.7% of operational costs for African airlines as per IATA WATS 2019, is exempt from taxation. However, various other specific taxes and fees are levied on passengers.

Apart from passenger taxes that are levied directly on the ticket, airlines face many other charges related to their operations at the airport level. Some of them are landing, noise, parking, Common User Terminal Equipment (CUTE), Jetway charge, passenger bus, lighting, counter, firefighting and prevention, check-in, ground power unit, ground handling, follow-me, hangar, housing, terminal, towing, and push-back among others. However, many other specific taxes and fees are applied to passengers. Various groups of countries in Africa have adopted preferential taxes and fee rates for travel among their members.

ECOWAS and the Central African Economic and Monetary Community (CEMAC).

Comparison with neighbouring regions shows that while the average amount of passengers paid taxes and fees in Africa is USD66, passengers are charged USD32.12 in Europe and in the Middle East despite the fact that traffic is much more significant in these regions.

Unlike the more uniform pricing models observed in rail and water transport, air transport demonstrates a broad array of tariff types. This diversity reflects airlines' strategies to tailor tariffs for different market segments, aiming to optimise revenue through capacity and pricing adjustments (Zhao & Zhang, 2001; Samunderu, 2023). Airlines strategically allocate discounted seats on flights or during times of low demand while reserving a smaller number of seats at higher fares for periods of high demand. This practice ensures the maximisation of passenger load at a standard economy or premium fares while also promoting discretionary travel (Cleophas, Kadatz & Vock, 2017).

A "normal economy fare" represents the baseline, offering passengers the highest level of flexibility concerning fare combinations, refunds, and itinerary changes. These fares often set the benchmark for pricing other fare types, including premium and restricted economy fares (Kesharwani, 2001). Restricted fares come with varying degrees of limitations, alongside other special fare categories such as excursion, standby, budget, incentive, affinity, and non-affinity group fares, as well as discounted fares for specific demographics like youth, families, military personnel, pilgrims, local residents, students, and teachers. Charter fares, typically lower than scheduled service fares, offer an alternative pricing model.

The cost per passenger-kilometre for normal economy fares shows significant variation with distance, highlighting the cost-efficiency of long-haul flights compared to shorter journeys. This variation not only depends on the distance but also on the route and regional factors, with fares for the same distance differing markedly between regions. For instance, the cost per passenger-kilometre for a short 250 km trip in Europe can be triple that of similar routes in the Asia/Pacific region. However, for longer distances, these regional fare disparities become less pronounced (IATA, 2024b).

Sub-regional Departures Taxes and Fees Different clusters of countries in Africa, such as ECOWAS and CEMAC, have adopted preferential rates for taxes and fees on travel within their member states. The implementation of preferential taxation results in an average total tax amount of USD 57.6, which is comparatively lower than for non-regional travel.

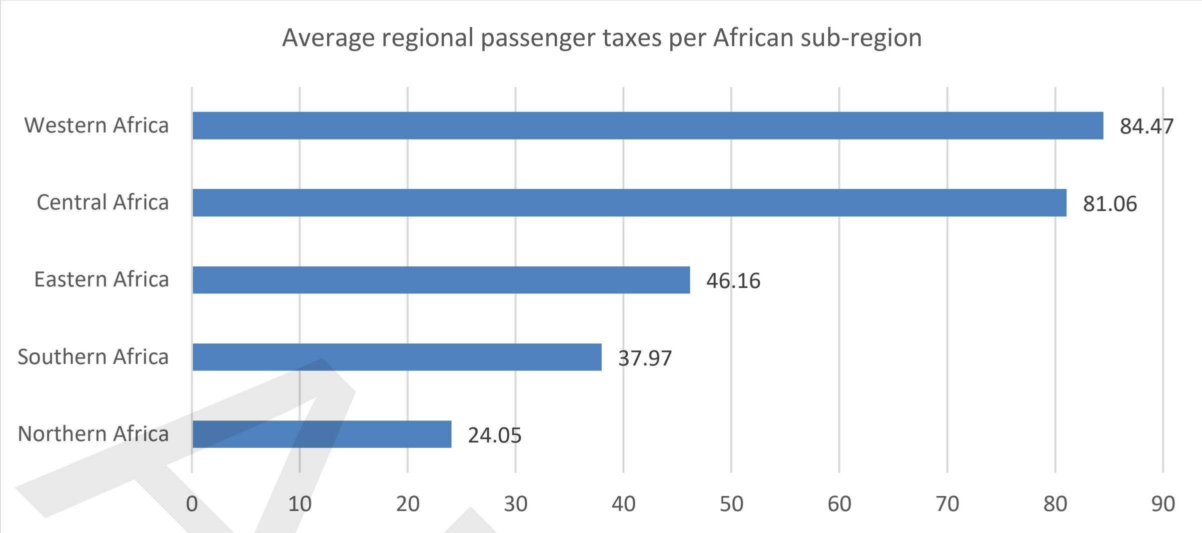


Figure 21 Average regional passenger taxes per African sub-region; Source: AFRAA, 2020

In Central and Western Africa, the regional tax policy stands out as particularly favourable, enabling passengers to realise average savings of USD 12.53 and USD 10.12, respectively (Figure 21 and Figure 22).

International Departures Taxes and Fees For non-regional travels, passengers face an average of 3.4 distinct taxes and fees upon departure, amounting to an average cost of USD 64. Among 53 airports, 10 impose charges exceeding USD 100 on passengers. Additionally, more than half of the airports, specifically 32, levy fees surpassing USD 50 on departing passengers.

Examining sub-regions, Figure 22 illustrates that Western and Central Africa stand out as the costliest regions concerning passenger charges, averaging USD 94.59 and USD 93.74, respectively, for international travel. Conversely, Northern Africa emerges as the region where passengers incur the lowest amount of taxes and fees, averaging USD 26.27.

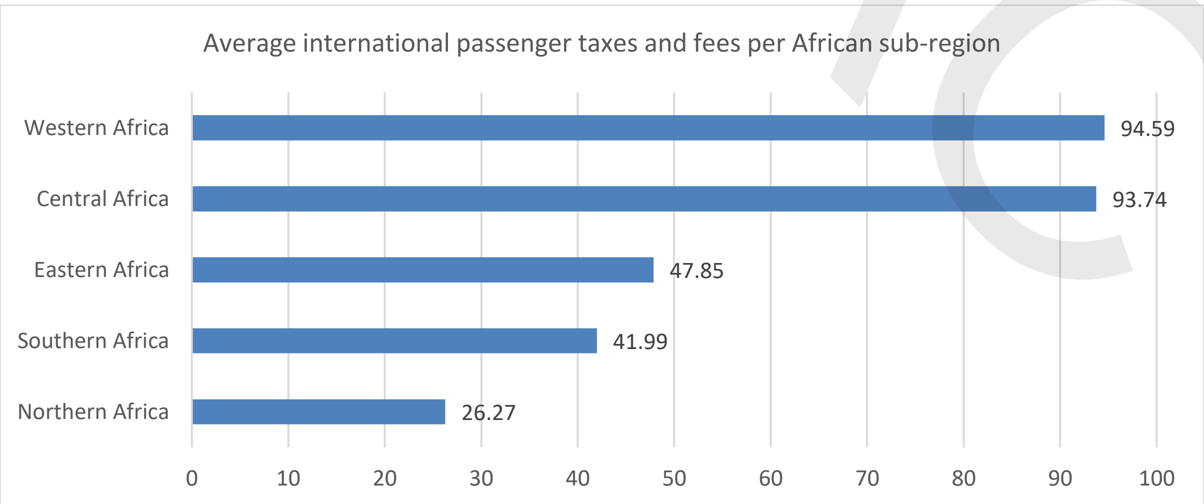


Figure 22 Average international passenger taxes and fees per African sub-region; Source: AFRAA, 2020

The prevalent high levels of taxes, charges, and fees pose a significant challenge and hinder the development of air transport in Africa. The perception of air transport as a luxury service results in governments overtaxing the supply chain, leading to excessive service charges for airlines. Notably, the average amount of taxes and fees paid by passengers for air tickets is twice as expensive in Africa compared to Europe or the Middle East.

AFRAA advocates for a reduction in taxes, charges, and fees throughout the supply chain, emphasising the need for efficiency gains to ensure affordable air transport prices and foster increased traffic growth rates. The price/demand elasticity for air transport within Africa ranges from -2.34% to -3.15%. This implies that a 10% reduction in ticket prices can potentially increase demand at the continental level, from 22.3 to 30.1 million passengers annually (AFRAA, 2020).

Therefore, lowering taxes and charges has the potential to significantly stimulate demand on the continent, making African airlines more competitive, particularly against foreign operators based in regions with lower taxation. A thriving air transport industry is crucial for the development of tourism, trade, and key economic sectors in Africa.

In sharp contrast with the liberalised markets of Europe, the picture of taxes is different. Flights in Europe are known for being cheap, allowing travellers to fly from London to Berlin for as little as €18 (USD21.23). However, more than half the European countries levy some type of tax on air travel. Today's map shows the average amount of aviation taxes per passenger, measured as total aviation tax revenue divided by the total number of passengers (domestic and international). Ticket taxes and value-added taxes (VAT) are covered in this measure.

Both ticket taxes and VAT depend on the passenger's destination and the country of departure. Only seven European countries covered in the map charge ticket taxes, namely Austria, France, Germany, Italy, Norway, Sweden, and the United Kingdom. Most European countries levy either standard or reduced VAT rates on domestic flights. International air travel is VAT-exempt (Tax Foundation, 2020).

In 2018, the United Kingdom levied the highest taxes on aviation of all European countries covered, at an average of €40.04 (USD 47.22) per passenger. Italy (€22.82 or USD 26.91) and Norway (€19.98 or USD 23.56) levied the second and third highest taxes (Tax Foundation,2020).

While countries such as Canada, Japan, or the United States levy excise duties on aircraft fuel, EU law does not allow for such duties on aircraft fuel used for commercial international and intra-EU flights. EU countries can levy an excise duty on aircraft fuel used for domestic flights; however, no EU country does so. EU countries do levy excise duties on other types of fuel, on average €0.56 per litter (USD2.48 per gallon) on gasoline and €0.45 per litter (USD2.00 per gallon) on diesel.

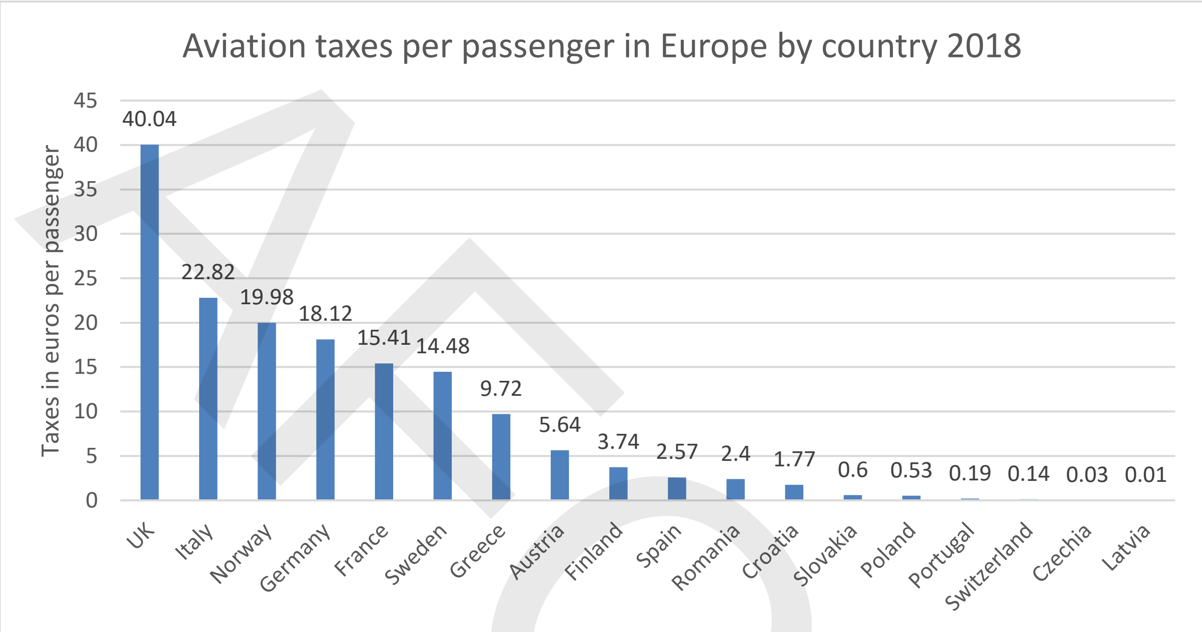


Figure 23 Aviation taxes per passenger in Europe by country 2018; Source: Tax Foundation, 2019

The United Kingdom, Italy, and Norway were the European countries with the highest aviation taxes in 2018. The United Kingdom levied an average of 40 euros per ticket, about double the figure for Italy and Norway. European countries only charge ticket taxes and VAT, exempting aircraft fuel from taxation. Since 2019, however, the EU has been debating putting an end to the tax break on jet fuel, in response to increasing environmental concerns (Figure 23) (Tax Foundation, 2020).

Exchange Controls

In Nigeria, Angola, or Zimbabwe, airlines face exchange control restrictions which can freeze revenues in local currency, making them the world's most unlikely collectors of "exotic currency reserves" (ReganVanRooy.com, 2024).

Airlines have experienced difficulty accessing and transferring funds from Angola, Eritrea, and Malawi among others. In August 2023, Nigeria held USD 783 million in airline revenues. While most of these funds have been released, the process involved significant losses for the affected carriers. In some instances, these conditions led to route suspensions. One airline CEO famously commented: "We're in the aviation business, but I feel like I'm running a currency museum." When you're holding millions in Nigerian naira or Zimbabwean dollars that you can't convert or repatriate, that makes the airline's position precarious in terms of paying its international pilots (ReganVanRooy.com, 2024).

Currency Roulette

Exchange rates can affect a country's inflation rate and the purchasing power of its currency. If a country's currency depreciates significantly, it can lead to higher inflation as the cost of imported goods and services increases. Indeed, the inflation rate in Sierra Leone increased steeply over the past two years. The IMF further estimates that inflation will continue to rise before falling again. This high inflation and other factors also led to the depreciation of the SLL.

Furthermore, a regional perspective showed that Nigeria and Liberia faced similar high inflation rates (National Bureau of Economic Research, 2023).

African currency pairs are some of the least commonly traded due to low market liquidity, with some countries opting for USD at times instead (E.g. Zimbabwe) (TradingView, 2023). Figure 24 below illustrates the volatility associated with the African currency units.

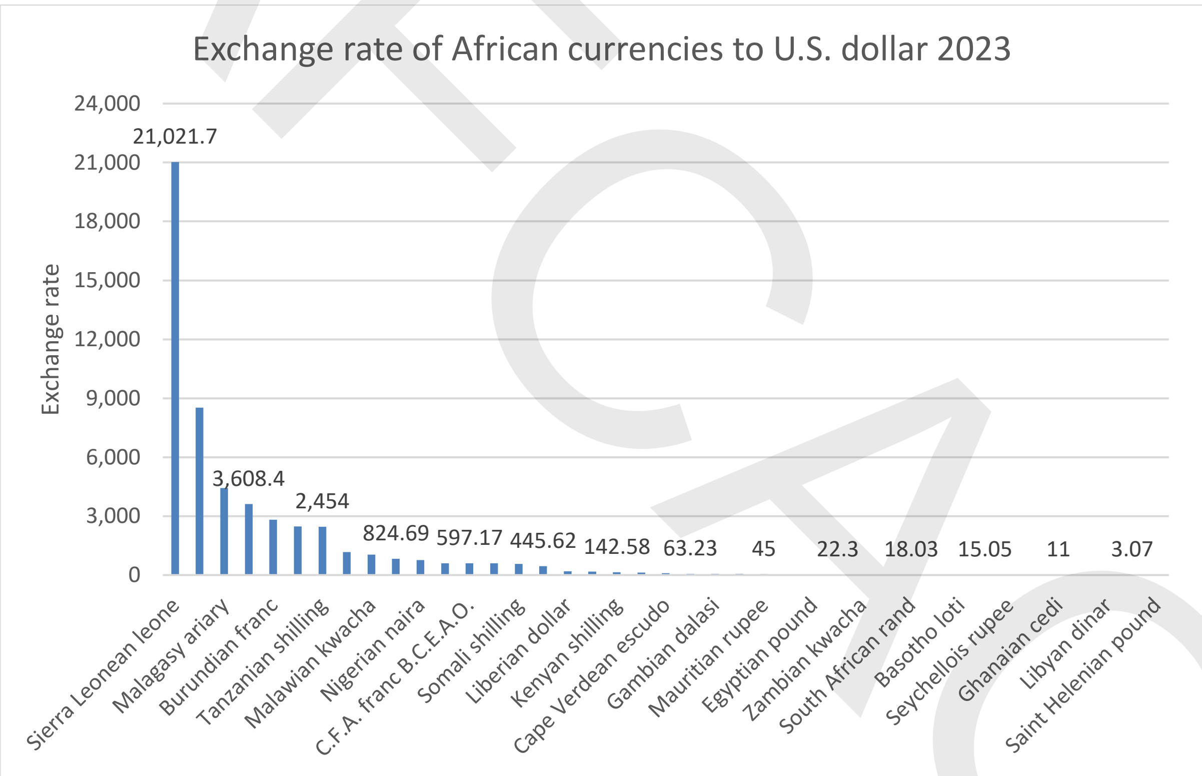


Figure 24 Exchange rate of African currencies to U.S. dollar 2023; Source: TradingView, 2023

Double Taxation

To meet the Sustainable Development Goals (SDGs) Africa ought to be self-reliant and re-orient itself from unreliable sources of development finance such as aid and debt to more sustainable domestically mobilised funds, of which taxation is key.

Unfortunately, efforts to mobilise the domestic resources remain elusive owing partly to the growth in complexity of the international taxation regime, which has subsequently permitted tax evasion and avoidance, thereby eroding the much-needed tax base. One of the fundamental issues with international taxation is instances of double taxation that may arise where firms operate in more than one tax jurisdiction. Most noteworthy, the mandate to tax rests on power. However, the challenge of who has the power to tax income is often difficult to determine, considering asymmetries in national tax regimes (TradingView, 2023).

To remedy this cross-border problem of double taxation or non-taxation, countries have signed Double Taxation Agreements (DTAs) with the sole purpose of allocating taxing rights between contracting states. However, the DTAs are surprisingly used as tools for attracting Foreign Direct Investment (FDI) by incorporating preferential tax rates and other incentives specifically for investors from contracting states.

In some instances, the absence or limited implementation of double taxation agreements between certain African countries can result in airlines being taxed on the same income in more than one jurisdiction. Even when there is a double taxation agreement, it may not prevent the destination from imposing tax if it allows a country to impose tax on “liftings” - the revenue for taking passengers or cargo out of a country.

For example, under the ECOWAS double taxation agreement, airlines from Côte d’Ivoire, Ghana, and Togo are not expected to be subject to lifting taxes in Nigeria. Similarly, Qatar Airways benefits from a tax exemption on international flight profits in Ghana, while in Nigeria, those same profits are currently taxable. Once the double taxation agreement between Qatar and Nigeria enters into force, taxation on liftings will be limited to 1%, reflecting the absence of reciprocal Nigerian airline operations on the route. South African Airways, by contrast, is exempt from tax in Nigeria because a Nigerian airline operates on the route between Nigeria and South Africa (ReganVanRooy.com, 2024).

Ad Valorem Ticket Charges and VAT Inclusion

Within the realms of aviation, it is imperative that international airlines are required to comply with all legal and commercial obligations of regular business enterprises within a country, including any VAT requirement. While VAT on domestic air transport is a political issue for debate within each jurisdiction, States have long recognised that international air transport is essentially different from other businesses due to its operations with great mobility across a multiplicity of jurisdictions and airspaces. International air transport and related services are provided to the end consumer outside any taxing jurisdiction. This is why any VAT paid on services and supplies purchased in a taxing country should be zero-rated and totally refundable (IATA, 2024e).

Instead of a fixed per-passenger fee, taxation could adopt an ad valorem approach to aviation tickets, potentially incorporating these into the VAT system. Presently, aviation, like other public transport modes, benefits from a VAT zero rating, effectively providing a subsidy when compared to VAT-applicable goods and services. While justifications exist for promoting bus, train, and coach use over private vehicles through such fiscal policies, extending similar subsidies to aviation is more contentious. Applying VAT to international aviation poses significant challenges, thus suggesting that any feasible VAT application would likely be confined to domestic flights (IATA, 2024e). It's important to note that imposing VAT on aviation tickets would not impact the business demand for flights due to the ability to reclaim VAT on business-related expenses.

Shifting from a fixed passenger charge to a VAT-based ticket charge does little to address the inherent drawbacks of a passenger tax compared to a flight tax. Specifically, it offers no additional motivation for airlines to maximise aircraft capacity, and the relationship between ticket pricing and environmental externalities remains indirect and weak.

If the objective of taxation is to curb aviation emissions, a direct emissions tax would theoretically serve as the ideal base. Practical challenges, however, such as the difficulty of accurately measuring emissions from individual flights, and the administrative costs involved, may dilute the environmental benefits of such a tax (Larsson, Elofsson, Sterner & Åkerman, 2019). A more viable alternative, which closely relates to emissions yet is easier to administer due to existing trading systems, is a tax on aviation fuel. This would incentivise airlines to invest in more fuel-efficient technologies, though it would not specifically target noise pollution or certain emissions like NOx, which are not directly correlated with fuel consumption.

Incorporating aviation fuel into the VAT system faces similar hurdles to those encountered with ticket VAT. To affect airline behaviour, any fuel tax would need to be structured as an unrecoverable duty. While several countries impose duties on domestic aviation fuel, legal barriers exist against imposing such duties on international flights. The Chicago Convention and numerous bilateral Air Service Agreements restrict taxation on aviation fuel used in international travel to prevent market distortions from refuelling practices. Although EU regulations since 2003 have permitted fuel taxation between member states, this option has yet to be utilised (Delft, 2019).

In summary, while alternative taxation bases offer the potential for more accurately internalising aviation externalities, they come with significant legal, practical, and administrative considerations that must be navigated to achieve the desired environmental and fiscal outcomes.

Aviation Taxes

Ticket taxes levy a tax on each origin-destination passenger departing from an airport in the country where the tax is applied, with the airline responsible for collecting the tax and paying it to the government. The taxable event is, therefore, a departing passenger leaving on a commercial airline. Features of most ticket taxes are the exemptions for transfer and transit passengers, as well as flights for state or military reasons. Since freight transport carries no passengers, freight is exempt from this tax. Whether the tax is passed on to passengers depends on the airline's pricing decision. Since airlines are liable for collecting the tax and paying it, they can choose the degree to which they pass it on to the customer.

There have been a series of requests to undertake a deeper analysis of the existing Taxes, Fees, and Charges that the consumer, passenger, or traveller pays for a flight ticket travelling within Africa. By examining the exact number of Taxes, Fees, and Charges, amounts, types, appellations, origins, and the impact of these taxes, fees, and charges on the air transport industry in Africa.

According to the World Travel and Tourism Council, the global travel and tourism sector generated 10.4% of all global activities in 2018, contributing USD 8.8 trillion to the global economy and supporting 319 million jobs. More specifically, the airline industry carried 4 billion passengers and 64 million tons of cargo across the world on around 22,000 routes in 2018 and generated USD 30 billion of net post-tax profit. Out of the 1.4 billion tourists that crossed international borders, 55% travelled by air.

According to the African Airlines Association (AFRAA) report released in 2020, revealed that in Central and Western Africa, 10 out of 23 airports (almost half) charge more than USD 100. Thus, the two regions represent only 20% of the global traffic to/from Africa. Most Northern African airports, which represent 35% of the traffic, charge less than USD .50

Central and Western African airports have the highest passenger taxes and fees, which vary from USD 164.9 in Niamey to USD 17.1 in Ilha Do Sal. The five (5) most expensive in Western Africa charge above USD 100. Passengers in North African airports enjoy the lowest amounts. Cairo charges USD 67 as passenger taxes and fees, while Khartoum charges only USD 8.2

On average, over 200 different types of taxes, fees, and charges exist in the five regions of Africa (West, East, Central, South and North). Some examples include solidarity tax, stamp tax, departure tax, safety charge, airport tax, embarkation tax, tourism tax, environmental tax, immigration fee, infrastructure tax, foreign travel tax, tourist development tax, fiscal tax, aeronautical development tax, check-in desk charge, foreign travel tax, passenger service charge, and the list continues.

To further elucidate the tax principles, the following section examines the Laffer Curve adopted in the field of economics.

The Laffer Curve is an integral concept within supply-side economics and encapsulates the theoretical effects of tax rate alterations on economic growth. The curve delineates the arithmetic effect, which reflects a decrease in tax revenue per currency unit resulting from lower tax rates, and the converse. Conversely, the economic effect acknowledges the positive impact that lower tax rates have on production, employment, and, ultimately the tax base, by incentivising increased economic activity. An increase in tax rates can lead to a deterrent economic effect, discouraging participation in taxed economic activities (Laffer, 2004).

Although the principle that tax rates and revenue are interrelated is widely accepted, the exact nature of this relationship remains a subject of debate within the academic community. The correlation between tax rates and revenue is likely to differ across economies, contingent upon factors such as the elasticity of labour supply and other fiscal dynamics.

Contemporary research into the fiscal environment of the airline industry suggests that the sector, while no longer a niche luxury service, is still perceived as such due to the prevailing tax framework. Currently, over 40% of air travel is undertaken for personal reasons, primarily to connect with family and friends, with a quarter of these journeys facilitated by budget airlines. This indicates that the existing taxation regime, while administratively convenient for the airlines, may also be deemed politically expedient (Fakile et al., 2022). The repercussions of such a tax structure are not immediately apparent, but they have long-term impacts on airlines, often resulting in suboptimal financial outcomes.

Specifically, an expansion in the size of an airline is associated with an enhancement of its financial performance. However, the research of Fakile et al. (2022) finds no direct relationship between improved financial metrics, such as post-tax profits or liquidity, and the amplification of sustainability reporting among publicly listed companies within Africa.

While effective tax management does not necessarily undermine financial performance, it is imperative for developing nations like Nigeria and others in Africa to adopt sound taxation practices. Not all airlines in the African aviation industry are on an even playing field regarding profitability, with some operating within economically challenged markets where consumer purchasing power is limited.

African governments are urged to pursue tax policy reforms tailored to the aviation sector to unlock the industry's growth potential. The implementation of trade liberalisation policies could also play a pivotal role in reducing taxes and encouraging economic vitality. However, the link between firm size and profitability is not necessarily linear, and as such, airlines must innovate relentlessly. Embracing emerging trends, devising new products that resonate with the current economic climate, and launching aggressive marketing campaigns are recommended to secure a competitive edge in the aviation marketplace.

As an example, the government legislation proposal on ending tax exemptions in Kenya could stifle growth propensity to an industry that is recovering from post-Covid 19 impact, thus, it would negatively impact the industry's sustainability and disincentivise growth and investment.

The Kenya Association of Air Operators (KAAO) - which represents 53 air operators, including Kenya Airways, Astral Aviation, Safarilink Aviation, ALS - Aircraft Leasing Services, Aberdair Aviation, and AirKenya, among others - objected to the government's Finance Bill 2024, which proposed eliminating VAT exemptions previously granted to the aviation sector.

According to KAAO, "These exemptions have been instrumental in stimulating growth and investment within the industry. The proposed deletion of these VAT exemptions threatens to undermine the substantial progress achieved in recent years, posing a significant risk to the sector's sustainability and its contribution to Kenya's economic growth" (ch-aviation.com, 2024). This will certainly push the cost of international travel within the region that is already characterised by high taxes within the sector. It should be noted here that this high taxation system does not fully correlate with infrastructure improvement as there is limited visibility on how the collected tax revenues are reinvested in the industry. Despite this high taxation system, African airport infrastructure remains relatively modest in comparison to other developed aviation regions.

Such exemptions have been instrumental in stimulating growth and investment within the industry. The proposed deletion of these VAT exemptions threatens to undermine the substantial progress achieved in recent years, posing a significant risk to the sector's sustainability and its contribution to Kenya's economic growth.

Current exemptions which would be subject to VAT in future include (Ch-aviation.com, 2024):

- aircraft with an unladen weight exceeding 2,000 kgs but not exceeding 15,000kgs;
- spacecraft (including satellites) and suborbital and spacecraft launch vehicles;
- hiring, leasing, and chartering aircraft, excluding helicopters;
- direction-finding compasses, instruments, and appliances for aircraft.

The KAAO argued that levelling VAT on these would mean a significant surge in acquisition costs for airlines and other air operators. These costs would be passed on to consumers in the form of escalating fares and higher charges for charters, cargo, aerial services, unmanned aircraft vehicle (UAV) services, balloon operations, aircraft repair and maintenance, and training prices. This, in turn, would stunt the sector's growth trajectory. Finally, imposing VAT on aircraft hiring, leasing, and chartering would escalate operational costs, which would have a domino or multiplier effect on aviation-reliant sectors such as tourism, trade, and emergency response (Ch-aviation.com, 2024).

However, the imposition of tax regimes has an economic rationale, thus, the imposition of taxes on aviation stems from its contribution to societal costs not fully accounted for by airline passengers. These costs include emissions contributing to climate change, noise pollution experienced by residents near airports and flight paths, and congestion both in airspace and airport vicinities. The existence of these externalities, when unaccounted for by consumers, leads to demand for aviation services exceeding the level that would be deemed socially optimal. Consequently, taxation serves as a mechanism to ensure that these additional societal costs are internalised by passengers, thereby aligning demand with societal preferences and enhancing overall social welfare. Even if there was no need to raise revenue from a tax on air travel, the externalities argument would provide an economic justification for such taxation.

Illustrated simplistically, the relationship between the number of flights and the 'price' of aviation can be conceptualised through a market diagram, where the marginal benefit (MB) curve represents the diminishing additional societal benefit of each subsequent flight. The marginal private cost (MPC) curve reflects the incremental cost to airlines per additional flight, encompassing expenses related to aircraft operation, route development, and acquisition of landing slots. The marginal social cost (MSC) curve, on the other hand, encapsulates the broader costs to society per additional flight, highlighting the disparity between private and societal costs due to the aforementioned externalities. In a scenario devoid of taxation, the equilibrium number of flights would be determined where benefits equal private marginal costs, potentially resulting in a welfare loss symbolised by the shaded area in the diagram. The introduction of an aviation tax, calibrated to equalise the marginal social cost with marginal benefits, effectively reduces flight numbers to a more socially desirable level, thereby mitigating the welfare loss. Such taxes, designed to internalise external costs, are referred to as 'Pigouvian Taxes.' Figure 25 below illustrates the above description of the externality argument for taxation.

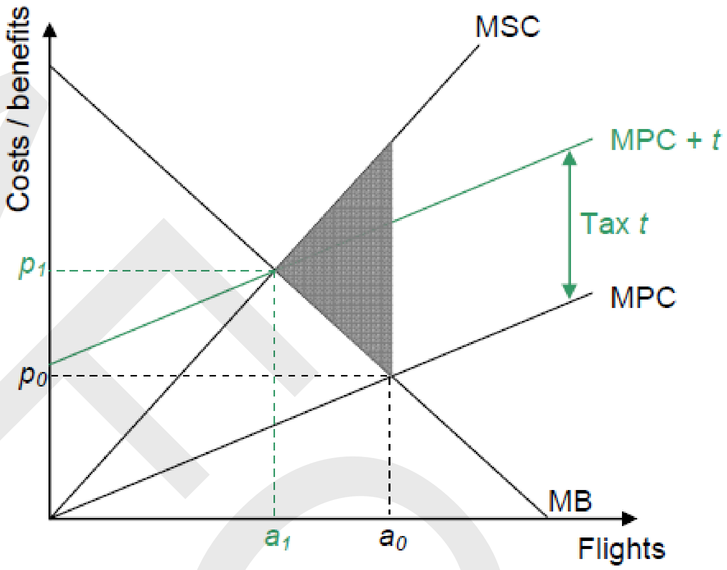


Figure 25 Externalities argument for taxation – Marginal Benefits and Marginal Social Costs; Source: Adapted from Delft (2003)

When contemplating the appropriate level of aviation taxation, several factors merit consideration:

- The tax rate should be established to produce the socially optimal output level of aviation services, aiming not to maximise revenue or precisely match the externalities imposed on society but to achieve a socially optimal provision of services.
- Ascertainment of the optimal tax rate is inherently complex, varying with local demographic densities, time of day, aircraft type, and the specific environmental impact of different flights.
- Given aviation's global nature, tax competition concerns arise, such as the potential for unilateral fuel tax imposition to incentivise refuelling in jurisdictions without such taxes, thus diluting the intended environmental benefits.

Beyond environmental motivations, aviation taxes can serve as significant revenue generators. For instance, the introduction of the Air Passenger Duty (APD) in November 1994 was partially justified by the aviation sector's perceived lower tax burden compared to private transportation, owing to exemptions from fuel duty and VAT zero-rating—a situation not unique to aviation among public transport modes. The balance between revenue-raising objectives and environmental goals is further explored in the context of the APD's design and impact (European Commission, 2007).

For the environmental rationale behind aviation taxes to hold, robust evidence on the scale of marginal externalities is crucial for effective tax policy design. This section proceeds to review changes in aviation emissions and evaluates economic research concerning the magnitude of external costs associated with aviation.

A spectrum of research endeavours has sought to precisely quantify the marginal external costs associated with aviation, thereby guiding the formulation of appropriate taxation levels. Initial studies primarily dissected the emissions externality. For instance, Bleijenberg and Wit (1998) investigated variable tax rates influenced by journey distance and aircraft type, rooted in shadow price estimations for each type of emission. They proposed that a Boeing 747-400 covering a distance of 2,000 kilometres should incur a tax ranging from approximately USD 1,700 to USD 11,000, contingent upon the uncertainty surrounding emission volumes and the magnitude of the externality, notably the cost associated with high-altitude emissions. This translates to roughly USD 3 to USD 20 per passenger for a two-thirds full aircraft, or about USD 1.50 to USD 10 per 1,000 passenger kilometres. A smaller F50 aircraft undertaking a 500-kilometre journey at two-thirds capacity was estimated to produce externalities valued at approximately USD60 to USD 350, equating to USD1.40 to USD 8.30 per passenger USD 2.80 to USD16.60 per 1,000 passenger-kilometres).

A subsequent analysis by Dings et al. (2003) expanded the scope to include both environmental and noise externalities. Noise impacts, most pronounced during take-off and landing due to proximity to residential areas, were found to be significant. A 100-seat aircraft travelling 500 kilometres was estimated to generate local externalities (predominantly noise, NOx, and particulate emissions) of around EUR 12.50 per 1,000 passenger-kilometres, or EUR 6.25 per passenger. In contrast, a 400-seat aircraft on a 6,000-kilometre route could produce marginal local externalities under EUR 1 per 1,000 passenger kilometres. The disparity in climate externalities between short- and long-haul flights was relatively minor, with estimates of EUR 7.20 and EUR 4.40 per 1,000 passenger kilometres, respectively. Including the uncertain impact of contrails significantly increases these estimates, suggesting externalities could represent 5% to 30% of flight costs, depending on distance.

Pearce and Pearce (2000) specifically evaluated Heathrow Airport, focusing on noise and emission costs across different flight lengths and aircraft models. They posited that a Boeing 747 400 on a long-haul flight would warrant an externality tax of around GBP 3,750, predominantly attributed to pollution costs, while a short-haul equivalent could see a tax of about GBP 900. Per-passenger taxation for short-haul flights was calculated at approximately GBP 3.20, or GBP 3.50 per 1,000 passenger-kilometres. Comparing their findings to those of Bleijenberg and Wit (1998), Pearce and Pearce observed general alignment in per-passenger and per-passenger-kilometre costs after adjusting for currency and distance, despite the latter study not incorporating noise emissions.

These studies underscore the complexity and variability of aviation's external costs, influenced by factors such as flight length, aircraft type, and local demographic densities. They collectively highlight the need for aviation taxes to be finely tuned to accurately reflect the nuanced externalities imposed by aviation activities, facilitating the achievement of socially optimal levels of air travel while acknowledging the challenges posed by international tax competition and the intricacies of accurately assessing external costs.

Choosing a Tax Base

As indicated throughout this study, establishing a standardised tax regime structure will require major reforms across the different RECs to ensure uniformity is established and the benefits welfare effects are evenly captured. Drawing this analysis from the UK example, the African policymakers could gain best practices for defining the base for establishing a continental-wide aviation tax structure.

When determining the most suitable base for aviation taxation, several key factors must be evaluated:

- **Correlation with Aviation Externalities**: The tax's effectiveness in reflecting the environmental and social impacts of aviation activities.
- **Administrative Complexity and Costs**: The logistical challenges and financial implications of implementing and managing the tax.
- **Distortionary Effects**: Potential unintended consequences on airline behaviours or broader economic implications, such as impacts on trade or the UK's status as an air transport hub.
- **Revenue Generation Potential**: The capacity of the tax to generate funds.
- **Implementation Obstacles**: Challenges arising from international agreements or other legal constraints.

It is pre-emptive to assume that a single tax base is the sole option for addressing aviation externalities. An ideal taxation strategy may incorporate multiple instruments, combining a fuel tax, which aligns closely with environmental impacts, with a ticket tax for optimal taxation, as suggested by Keen and Strand (2007). Departure taxes, varying by airport, could further address noise externalities.

Currently, the Air Passenger Duty (APD) is critiqued for its weak linkage between the tax paid and the actual environmental externality caused. The APD's structure—varying minimally by destination and seat class—fails to accurately reflect the environmental impact of different flights. Transitioning to a flight-based tax could potentially rectify this misalignment, enabling a more precise targeting of environmental externalities. However, such a shift necessitates careful consideration of the trade-off between targeting accuracy and administrative simplicity. Here are some advantages of flight-based taxation:

- **Enhanced Incentives for Optimal Capacity Utilisation**: Flight taxes encourage airlines to maximise aircraft load, promoting environmental efficiency by favouring fully loaded flights over multiple underutilised services.
- **Applicability to Freight**: Unlike passenger taxes, a flight-based approach can straightforwardly

encompass freight services, addressing their environmental emissions and noise impacts without creating perverse incentives for segregated passenger and freight flights.

On the other hand, there is a challenge of **Exemption Mechanisms**. A shift towards flight-based taxation complicates exemptions for certain passenger categories, such as those in transit, potentially impacting the UK's role as a global air travel hub. Solutions like rebate systems could mitigate this issue, albeit at the expense of increased tax complexity.

The contemplation of aviation tax bases involves a balance between environmental accountability, economic efficiency, administrative feasibility, and the broader impacts on the aviation sector and its stakeholders.

Tax Planning in the Aviation Sector

The exigency of taxation exerts a profound influence on the public's ability to travel and the economic viability of businesses relying on air transport or cargo as a pivotal input in their production processes. Indirect taxes, which are levied upon goods and services instead of income or profits, may sometimes obfuscate the real economic incidence of taxation, as even ostensibly direct taxes such as corporate tax, are frequently passed on to consumers. Tax planning, therefore, becomes a crucial strategy for entities to effectively manage their fiscal obligations by either decreasing their taxable income or augmenting their tax credits, ultimately leading to a reduction in cash tax liabilities. The efficacy of these financial strategies is predicated on the quantum of tax savings, the timing of any potential reimbursements, and any subsequent costs incurred through interest or penalties to tax authorities. Importantly, unlike various cost-reduction tactics that may adversely affect company operations, judicious tax planning may yield financial benefits without negatively impacting the firm's core activities.

Utilising tax rate structures or ratios without accounting for the interplay between various taxes and the benefits they afford results in an incomplete understanding of the overall tax burden. Effective tax rates provide a more comprehensive perspective by including both statutory rates and other factors influencing tax liabilities, such as permissible deductions and government benefits.

Taxation within the aviation industry offers governments a cost-effective and expedient means of revenue generation. Unfortunately, the predominance of monopolistic service providers, coupled with a lack of transparency and adequate regulatory oversight, has culminated in elevated TCFs. This not only undermines the commercial viability of airlines but also impedes sectoral growth, distorts markets, and diverts finances. A comparative study of TCFs, specific to passengers at 15 African airports, was undertaken against five international airports (Gleeve, 2015). The study found that the departure taxes for international flights (excluding safety, security, and other ancillary charges) were on average, 30% higher at African airports compared to their non-African counterparts. Overall, TCFs at African airports were found to be 8% higher on average than at non-African airports (Gleeve, 2015).

Reforming Aviation Taxation: Strategic Considerations

The discourse on refining aviation taxation highlights several insights critical for reforming the tax base from a per-seat to a per-aircraft model (Leicester & O'Dea, 2008):

- A mere seat tax, despite incentivising optimal aircraft capacity utilisation, falls short of precisely targeting aviation's noise and emissions externalities. An effective taxation framework should consider variables such as aircraft type, emissions profile, departure airport (owing to variable marginal noise externalities), and distance travelled. This necessitates a balanced evaluation of the sophisticated tax structure's operational costs against its benefits.
- The tax design must deter airlines and passengers from seeking loopholes to evade the tax. For instance, a per-seat levy might prompt airlines to install removable seats on routes with traditionally lower load factors. Moreover, a per-flight tax, varying significantly with distance, could incentivise passengers to circumvent higher charges by opting for connecting flights, potentially elevating overall emissions.
- Over time, the tax could reshape airlines' route offerings, particularly impacting flights with lower load factors. While the tax aims to reduce flights on under-utilised aircraft, it may also limit service options to less popular destinations, affecting passengers' choice and frequency of available flights. This adjustment in airline operations, though aligned with the tax's environmental objectives, could disadvantage passengers in more isolated regions.

A transition from passenger-based to flight-based taxation, if meticulously executed, holds considerable promise, especially considering the restrictions on international aviation taxation. Such a reform could result in domestic passengers facing lower taxes than currently observed. Historically, domestic flights have been subject to higher taxes compared to international services. To prevent a reduction in domestic aviation taxes under the new regime, the government might need to either restrain the tax rate's variability with distance or introduce alternative taxes, such as those on fuel or tickets, for domestic flights.

For international flights, a re-evaluation of international treaties to permit fuel taxes to capture environmental emissions effectively, alongside supplementary charges for noise pollution, represents an ideal scenario. However, given the challenges in renegotiating these agreements, a well-conceived per-flight tax emerges as a viable alternative in the interim.

These strategic lessons underline the complexity of reforming aviation taxation to address environmental externalities more accurately while navigating operational, legal, and policy constraints. The ultimate goal is to design a tax system that not only mitigates aviation's environmental impact but also accommodates the industry's global nature and the practicalities of tax administration.

African Aviation Taxes

Taxation, as a critical fiscal policy component, wields a profound influence on both macroeconomic stability and microeconomic behaviour within a country. Effective tax management involves a strategic approach to business dealings that maximises the utilisation of available tax incentives under the law, consequently reducing the tax burden.

The African Airline Association's Report (2022) underscore the detrimental impact of exorbitant airport charges and taxes on the progress and expansion of the African aviation sector. Take Libreville and Bangui for instance. The journey takes a minimum of nine hours costs USD 1,000, and requires passengers to change planes at least two times and this reflects an example of the challenges facing Africa's aviation sector because of high taxes and protectionist policies. In comparison, a flight between Paris and Madrid - which crosses an equivalent distance - takes two hours and costs approximately 80% less than the journey between Libreville and Bangui. This is further exacerbated by restricted traffic rights granted by to airlines, thus, limiting the number of direct routes and the frequency of flights, and making journeys longer across the 54-nation continent.

Against the backdrop of burgeoning yet nascent aviation markets in Africa, it is argued that imposing steep taxation is counterproductive. The adoption of effective tax management strategies promises to positively influence the financial outcomes of firms in both the immediate and extended future. While the study initially centred on Nigeria's aviation industry, the challenge of accessing comprehensive financial disclosures—owing to the private ownership of many airlines—necessitated an expanded focus to encapsulate the broader African aviation industry (Fakile et al., 2022).

The aviation sector's taxation must align with the overarching objectives of public interest rather than being arbitrary. It is, therefore, pertinent to integrate the aviation tax system within the broader fiscal framework. Historically, the challenge has been to evaluate aviation taxes as a singular entity. Taxes, as defined, are compulsory contributions devoid of a direct quid pro quo benefit for the taxpayer, underscoring their role as a financial foundation for government operations and societal benefits. In Nigeria, for example in 2024, the Ministry of Aviation and Aerospace Development justified its reason for introducing a USD 300 landing fee on helicopter operators, as a cost recovery measure that aligns with international best practices. Although opposed by the Airlines Operators of Nigeria (AON), the Nigerian Airspace Management Agency (NAMA) aimed at raising charges by 800% from NGN 2,000 and NGN 6,000 to NGN 18,000 and NGN 54,000 per flight, to cover rising diesel and logistical costs. However, the proposal was shelved after just one month citing the need to develop a more comprehensive and workable framework for implementing compliance with lending levy payments (Nigerian Airspace Management Agency, 2024).

Further, the study of Penner et al. (1999) provides a nuanced perspective on the airline industry's tax landscape, postulating that the luxury image perpetuated by taxes is at odds with the reality of air travel's modern ubiquity. The findings that over 40% of air travel serves the purpose of personal relationships, with a significant portion facilitated by budget carriers, illustrate the disconnect between the perception and the operational reality of the airline industry's tax regimen. The implications of such tax policies on airlines' financial performance, though not immediately apparent, ultimately manifest in adverse financial outcomes.

The landscape of aviation-related taxes, charges, and fees across the five regions of Africa— West, East, Central, South, and North—is notably diverse, with an average of over 200 distinct types being levied. This extensive array encompasses various forms of taxation and fees designed to address a broad spectrum of operational, regulatory, and developmental priorities within the aviation sector and beyond. Among these are the solidarity tax, stamp tax, departure tax, and safety charge, which aim to fund sector-specific safety enhancements and broader social welfare initiatives.

Additionally, there are airport taxes and embarkation taxes that contribute directly to airport infrastructure and maintenance. The tourism and environmental taxes are geared towards mitigating the environmental impact of tourism and aviation and supporting sustainable tourism development. Immigration fees cover the administrative costs of border control services, while infrastructure taxes support the broader transportation network essential for the aviation sector.

The diversity extends to specific charges like the check-in desk charge, aeronautical development tax aimed at fostering aviation sector growth, and passenger service charges that directly relate to the provision of passenger services. The imposition of such a wide variety of taxes and charges reflects the complex interplay between aiming to ensure aviation safety and development, facilitating tourism, managing environmental impacts, and generating revenue for governmental and regulatory authorities.

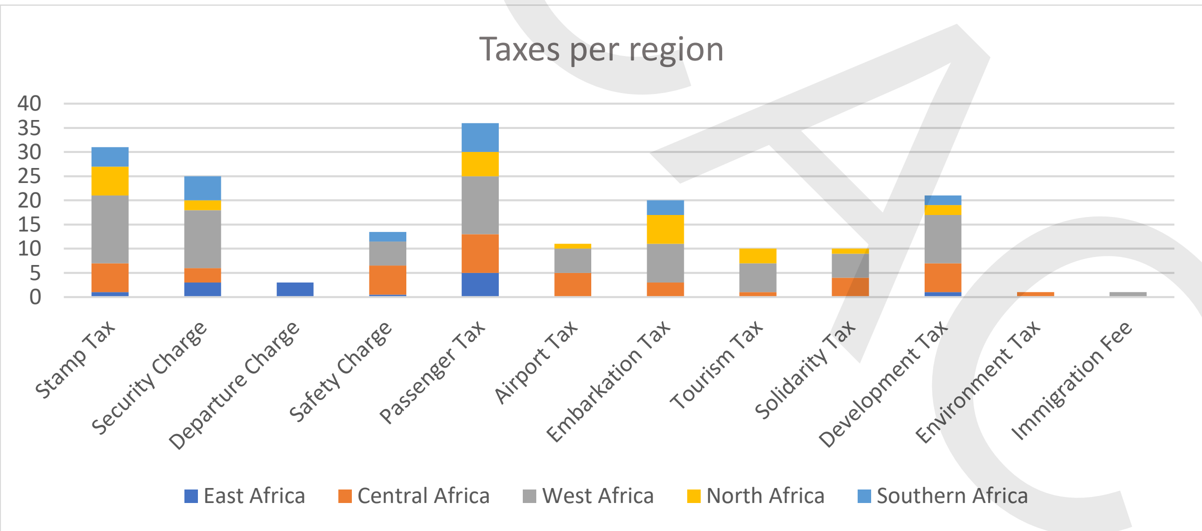


Figure 26 Taxes per region; Source: Ngala, 2021

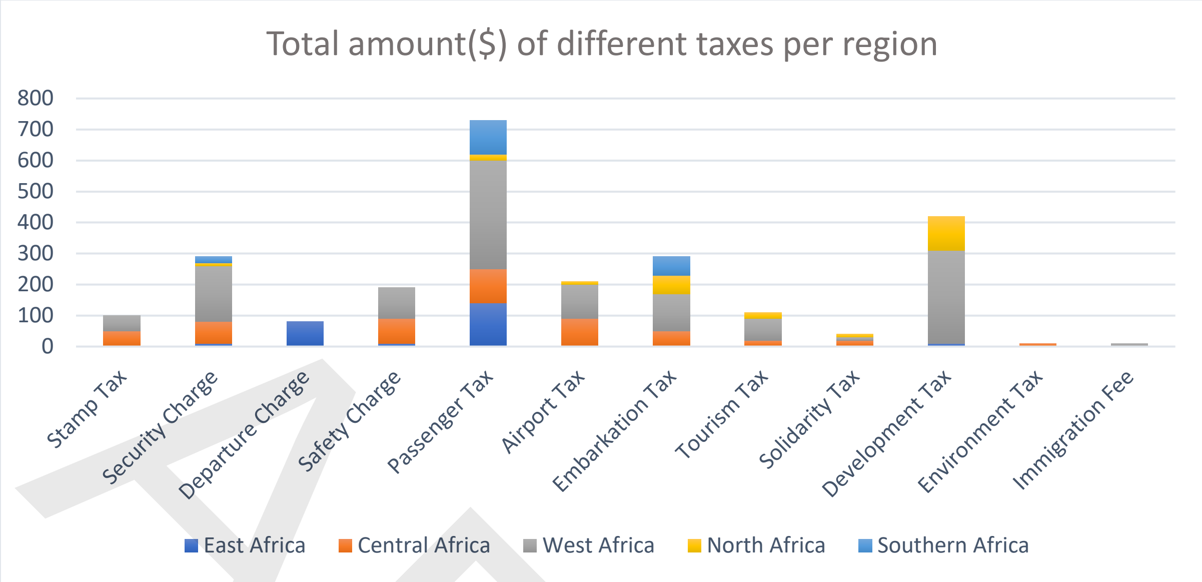


Figure 27 Total amount of different taxes per region; Source: Ngala, 2021

Figure 26 and Figure 27 provide a comparative analysis of the number and financial magnitude of taxes, charges and fees levied across various African regions. It is observed that the West African region ranks foremost in both the aggregate count and sum of these levies, closely followed by the Central African region (Figure 28 and Figure 29).

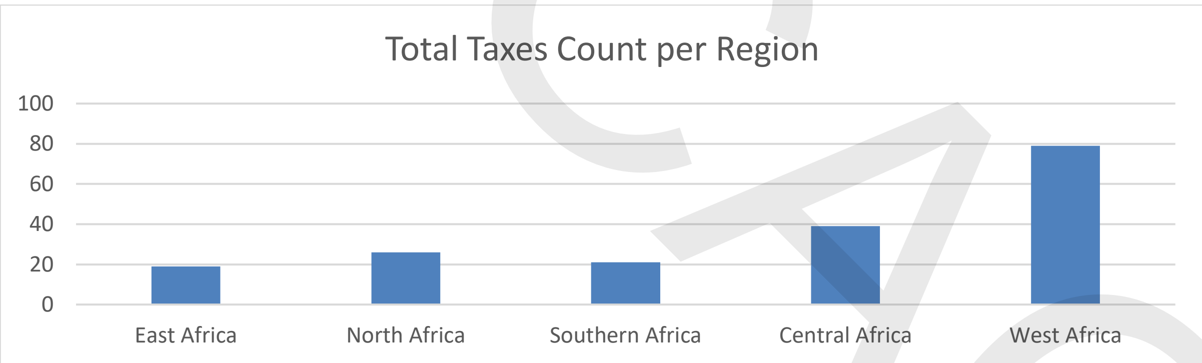


Figure 28 Total Taxes Count per Region; Source: Ngala, 2021

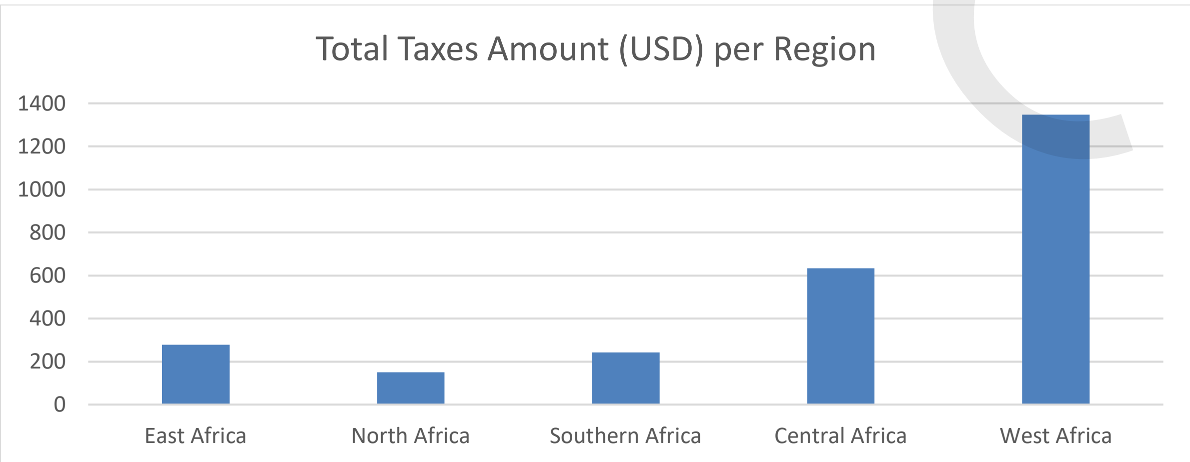


Figure 29 Total Taxes Amount (USD) per Region; Source: Ngala, 2021

Following a moderate resurgence in activity, achieving approximately 48% of the pre-pandemic peak, the aviation industry has experienced a significant escalation in certain levies, alongside the instigation of new ones, ostensibly to facilitate COVID-19 protocol measures at airports. However, this occurs against a backdrop where passengers continue to bear the cost of testing, both prior to departure and upon arrival at their destinations, leading to a form of duplicative financial imposition that serves to augment the overall expenses of air travel within Africa.

However, when taxes are imposed on the airline, it influences the entire airline's financial ecosystem. In response to the tax, the airline needs to increase fares to offset the new expense, leading to a burden shift to consumers who then pay these increased fares.

Figure 30 highlights the interconnectedness of government policy, corporate strategy, and economic welfare.

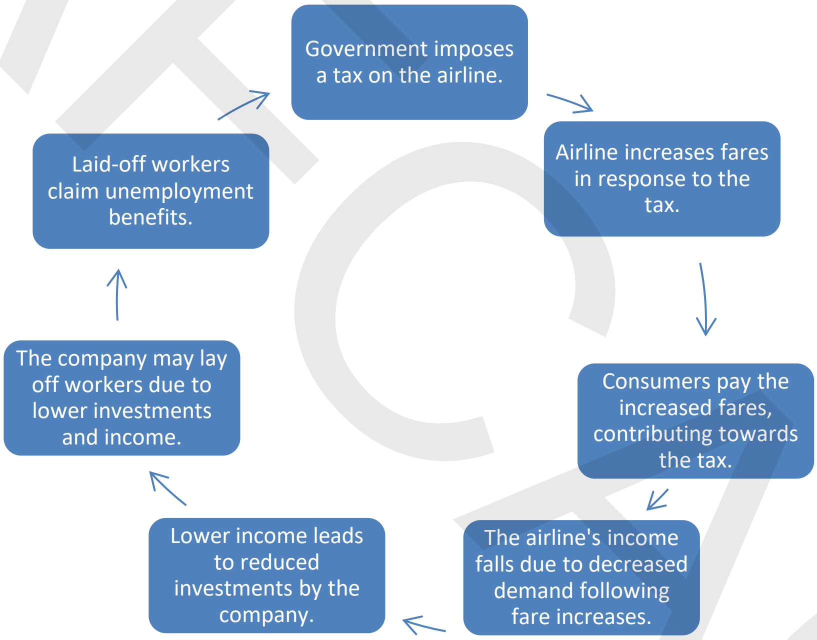


Figure 30 Taxation cycle; Source: Ngala, 2021

The imposition of taxes on airlines can significantly reduce their profitability, prompting them to adjust by escalating airfares, consequently transferring the fiscal burden onto consumers. The taxation also dampens the anticipated yield from investments, leading to a curtailed expansion of the airline's fleet and a reduction in the number of flights offered. Such curtailment may precipitate higher ticket prices and the unfortunate dismissal of airline staff (Figure 30). This scenario exemplifies the pervasive and multifaceted repercussions that taxation can induce within the economy.

Globally, Africa bears the heftiest aviation tax burden, with West and Central Africa being particularly noted as the costliest regions for airline operations (Figure 29). In an academic context, Ngala (2021) assesses aviation tax structures across various African regions:

- Dar es Salaam (DAR) in East Africa has the highest overall tax burden among the sampled cities, with a notable proportion of charges coming from airport service and passenger service charges (Figure 31).
- Kigali (KRT) presents the lowest tax profile in the East African region, indicating a cost advantage in airport taxes compared to its regional counterparts (Figure 31).
- Cairo (CAI) exhibits the highest tax amount in the North African sample, distinguished by the inclusion of a 'solidarity tax' unique to its tax structure (Figure 32).
- Libreville (LBV) exhibits a relatively nominal tax imposition (Figure 33); however, an additional levy of 8% is applicable on tickets within the CEMAC (Economic and Monetary Community of Central Africa) region.
- Departures from Brazzaville (BZV) incur a sales tax that oscillates between 1.9% and 6.5% for flights destined for CEMAC countries (Figure 33).
- Flights originating from Douala (DLA) are subject to a Value Added Tax (VAT) of 19.25% when flying to CEMAC nations, augmented by a statutory obligation enacted by the Finance Law of 2018, which stipulates a tax of 25,000 Central African CFA franc (Fcfa) for all passengers departing from Cameroon (Figure 33).
- Cotonou (COO) registers the lowest tax burden in the West African region, a status closely followed by Lome (LFW) (Figure 34).
- Conversely, Bissau (OXB) and Dakar (DKR) attract the highest tax rates, with the latter's tax liability primarily driven by an infrastructure development charge amounting to approximately USD 65 (Figure 34).
- Abuja (ABV) applies both VAT and sales tax at a rate of 5% each on the foundational price of airline tickets (Figure 34).
- Dakar (DKR) stands as the costliest city in terms of aviation taxes within West and Central Africa. The array of taxes levied includes a security charge of Fcfa 6,000, a passenger service charge of Fcfa 10,000, a civil aviation charge of Fcfa 2,000, an immigration user fee of USD 12 and an infrastructure development charge of EUR 54 (Figure 34).
- Johannesburg (JNB) presents the lowest tax incidence; nonetheless, the application of a 14% VAT on the base fare escalates the total tax to a level that surpasses other cities when evaluated against the net fare of the ticket (Figure 35).
- Lilongwe (LLW) is recognised for having the lowest tax imposition (Figure 35).

Regionally, Central Africa is identified as the locality where passengers bear the highest aviation tax burden, followed by West Africa. In contrast, North Africa is characterised by the lowest passenger tax load. The taxation frameworks in Eastern and Southern Africa are predominantly percentage-based on the fare, rendering air travel financially more accessible for passengers. This tax configuration is a contributing factor to the success of Low-Cost Carriers (LCCs) in these regions (Ngala, 2021).

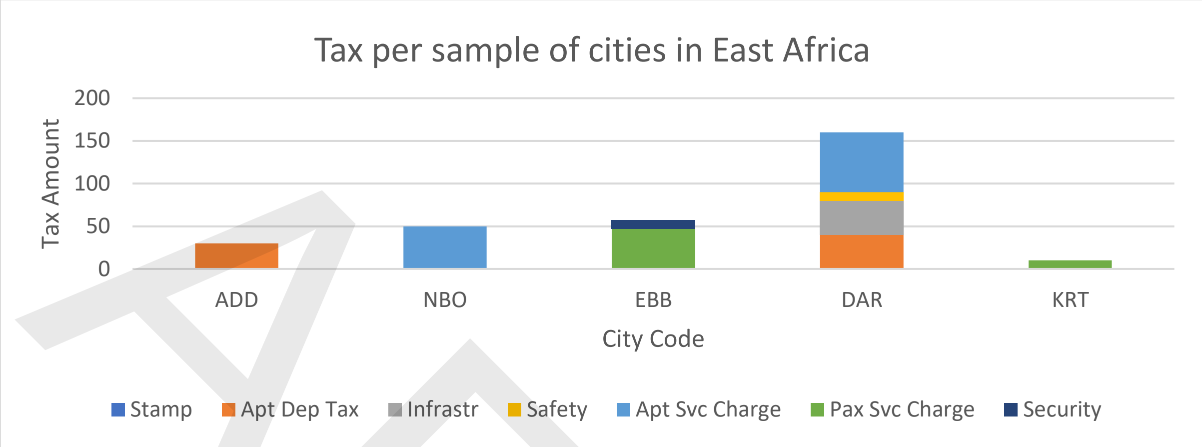


Figure 31 Tax per sample of cities in East Africa; Source: Ngala, 2021

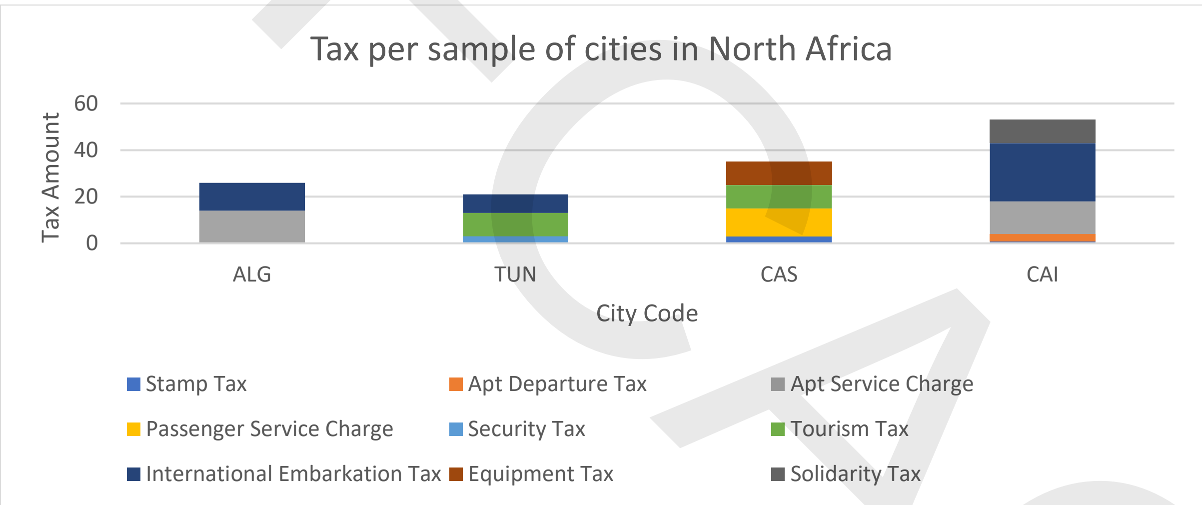


Figure 32 Tax per sample of cities in North Africa; Source: Ngala, 2021

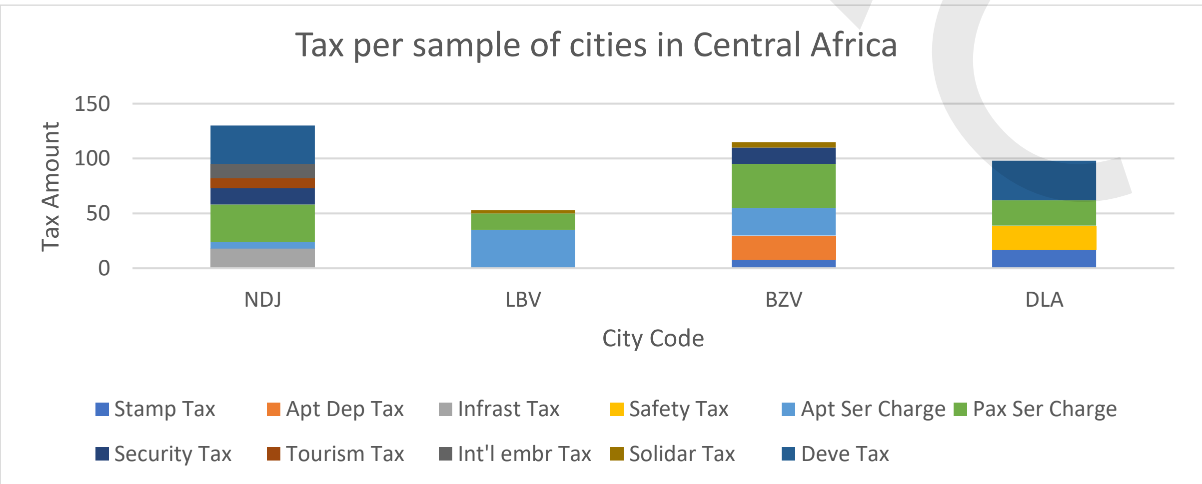


Figure 33 Tax per sample of cities in Central Africa; Source: Ngala, 2021

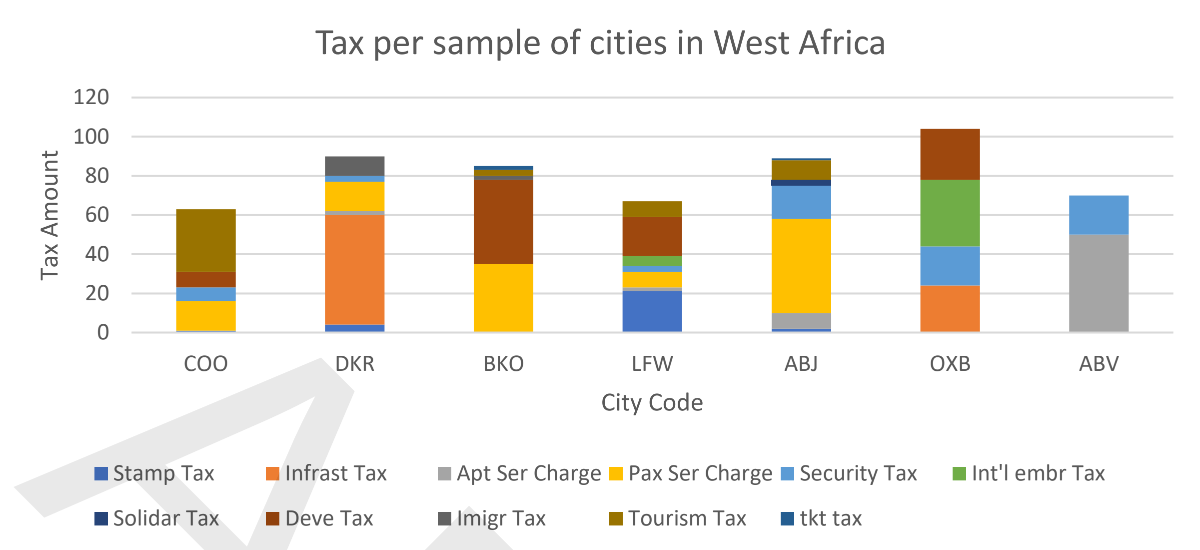


Figure 34 Tax per sample of cities in West Africa;Source: Ngala, 2021

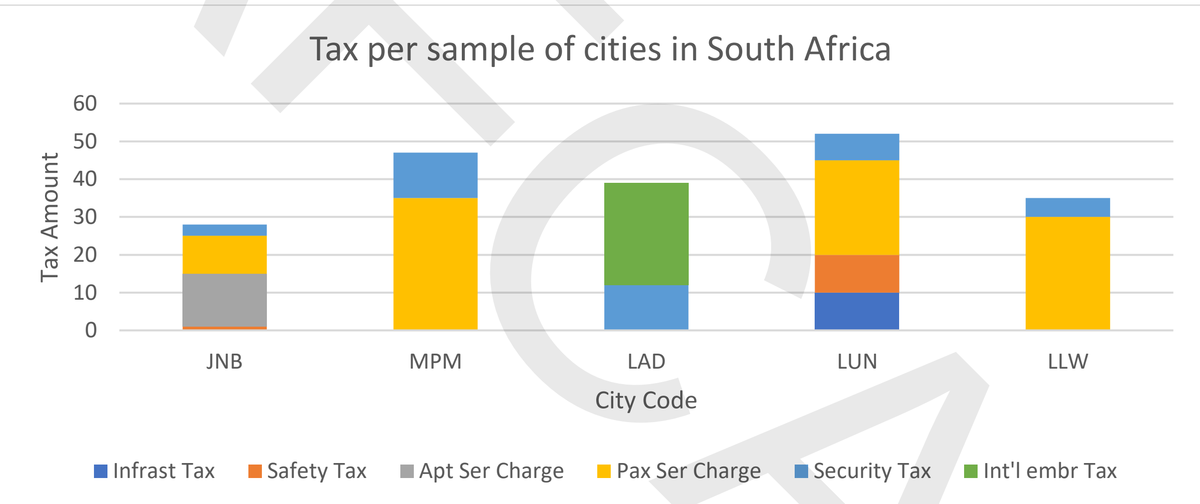


Figure 35 Tax per sample of cities in the South African Region; Source: Ngala, 2021

Airport charges

Airport charges stand as a critical component within the aviation sector's commercial ecosystem, primarily facilitating infrastructure development. These charges not only affect aviation's socio-economic connectivity and consumer pricing but also guide airlines on the efficient utilisation of limited airport resources. This includes management of airport slots and environmental considerations such as noise control and climate impact mitigation. Since the inception of ICAO's policies on airport charges in 1948, there has been a significant transformation in aviation, necessitating a contemporary approach to airport charge frameworks that align with both market supply and demand dynamics.

The aviation industry has experienced profound changes through deregulation, privatisation, and market consolidation, which have fostered competitive dynamics, even among airports. Although the traditional cost-recovery model for setting airport charges remains predominant, the evolution of the sector calls for revised strategies that better represent the present-day competitive environment and the economic efficiency of airport operations. The competitive landscape for airports now extends beyond local catchment areas, encompassing international markets for both passengers and air service capacity. With airlines wielding significant market power due to consolidations and alliances, the imposition of airport charges is increasingly influenced by these competitive forces, diminishing the likelihood of economic inefficiencies arising from market power misuse.

In Africa, there are other extraneous airport charges apart from passenger taxes that are levied directly on the ticket. Airlines face many other charges related to their operations at the airport level. Some of them are landing, noise, parking, Common User Terminal Equipment (CUTE), Jetway charge, passenger bus, lighting, counter, firefighting and prevention, check-in, ground power unit, ground handling, follow-me, hangar, housing, terminal, towing and push- back (IATA, 2022).

Mogadishu, Somalia is the most expensive airport for airline charges, with more than USD 2,000 for an international flight, while a busy airport like Algiers charges USD 158 in the same conditions (AFRAA, 2022). The average amount of charges paid is USD 624, but 53% of the airports are charging less than USD 600. Three airports in Africa charge below USD 50: Maseru, Khartoum, and Manzini. From the analysis, the busiest airports are among the cheapest, like Johannesburg, Addis Ababa, Nairobi, and Algiers, which charge less than the average.

In contrast IATA had a different ranking score of expensive airports in the world. In September 2023, the IATA ranked Nnamdi Azikiwe International Airport, Abuja, and Murtala Muhammed International Airport, Lagos, both in Nigeria, as the most expensive airports in the world to do business, in terms of levy and tax charges (Times Aerospace, 2024). IATA made a comparison, stating that Lagos (LOS) and Abuja (ABV) were the most expensive airports in the world as the passenger service charge was USD 100 per passenger, while Doha (DOH), the best airport in the world, charged USD 44 for that service and Dubai (DXB) charged USD 40 according to Times Aerospace (2024).

Interestingly, in terms of global ranking air transport efficiency, none of the African countries are ranked in the top 20 worldwide. See Figure 36 below for the top 20 countries in terms of air transport efficiency. In 2019, Singapore was the most efficient country in air transport services with a 6.7 rating, which is measured based on a scale of one to seven. Singapore is known internationally for its leading position in the transportation industry.

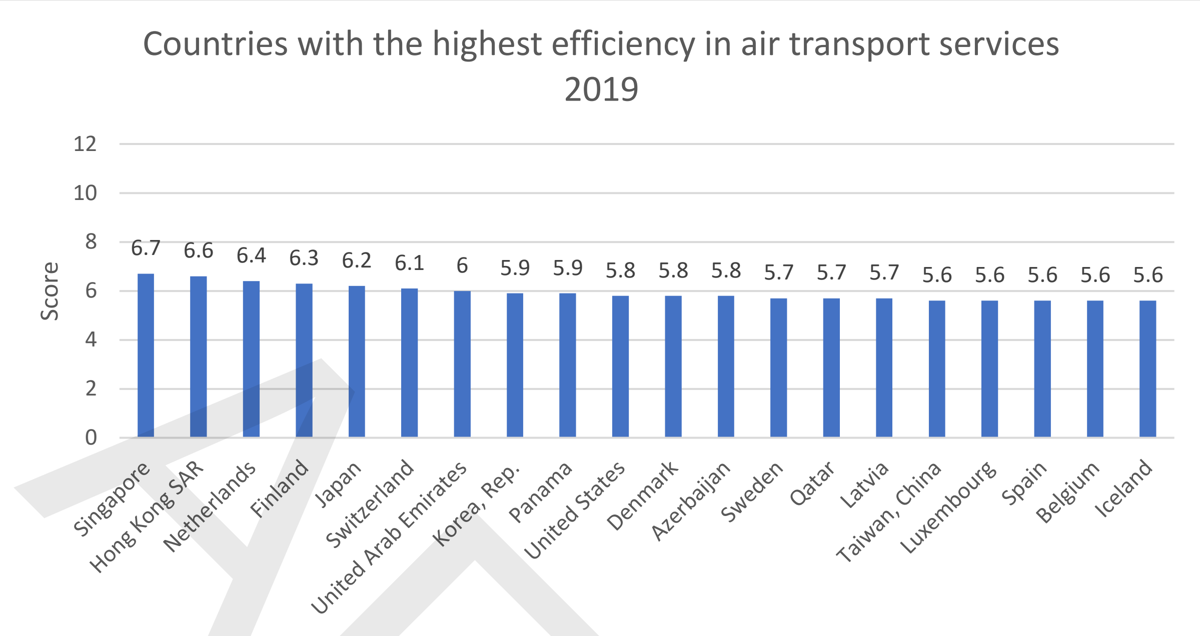


Figure 36 Countries with the highest efficiency in air transport services 2019; Source: World Economic Forum, 2019

The role of airport charges transcends mere operational costs, with a minimal impact on consumers, constituting approximately 5.1% of the total airfare. According to Intervistas and ACI Policy Brief (2021), airport charges have fallen in real (inflation adjusted USD) terms. This means that global airport charges per passenger have on average declined by approximately 20% in real terms in the 5 years up to 2019 (Intervistas & ACI Policy Brief, 2021). See Figure 37 below:

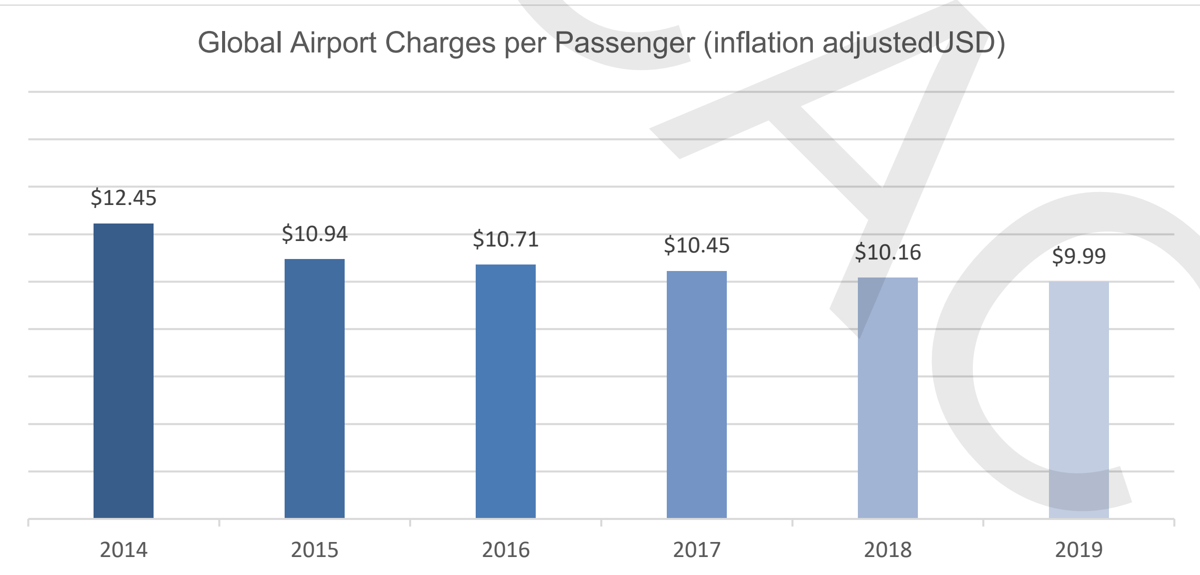


Figure 37 Global Airport Charges per Passenger (inflation adjusted USD); Source: Intervistas/ACI (2021)

Despite capital expenditure growth, global aeronautical revenue from charges has decreased, signalling the small yet pivotal role that these charges play in sustaining airport infrastructure. From a climate perspective, airports are leveraging charges to incentivise reductions in emissions and noise, aligning with broader environmental objectives. Even in the face of adversity, such as the COVID-19 pandemic, airports have demonstrated resilience, introducing incentives to counteract the downturn and preparing for future capacity demands estimated at USD 2.4 trillion globally by 2040.

Airports worldwide face a spectrum of economic regulations affecting their charges, from stringent to lenient models. However, heavy regulation has not consistently led to lower charges, and in some instances, it correlates with higher fees, potentially due to extensive capital expenditure requirements. A global survey, conducted by ACI in 2021, suggests that stringent regulatory frameworks may hinder innovation and flexibility, constraining airports from implementing effective strategies for demand stimulation and capacity allocation. The COVID-19 pandemic has amplified these challenges, with airports grappling with the need for agile price adjustments and clarity on loss recovery. It is imperative to note that there is full recognition that both airlines and airports have suffered greatly from this crisis and the resulting financial shortfall. Both need each other to thrive along with many other actors in the ecosystem. Thus, developing models of airport charges that allow better risk sharing between airports and airlines will be an important consideration going forward (Intervistas & ACI 2021).

However, the global pandemic brought unprecedented financial challenges to the airport sector, triggering substantial revenue losses and necessitating strategic responses, including the application of discounts and incentives to spur recovery. The shifting landscape has led investors to reassess the risk profiles of airports, with some experiencing credit downgrades and increased financial market risk. If airports are unable to recuperate pandemic-related losses through future charges, investor expectations for higher returns could influence the investment climate, underscoring the need for regulatory frameworks that support economic recovery and sustainable development within the aviation industry.

Historically, airport charges have been based on recovering the operational and capital expenditure incurred by the airport, hence, a recovery strategy, with fees aligned to specific cost centres such as terminals and runways. However, there is a shift towards a market-based pricing model that balances cost recovery with efficient capacity management and demand-centric valuation (ACI, 2021). Various pricing strategies are utilised to optimise the financial and operational objectives (Table 7).

Pricing Strategy	Objective	Focus Area
Efficiency-Driven Cost Recovery	Recuperate ongoing costs and encourage cost-efficiency	Supply Side
Value-Based Pricing	Align charges with consumer valuation and capacity investment needs	Demand Side
Connectivity Enhancement Pricing	Incentivise service expansion and competition	Demand Side
Competitive Market Response Pricing	Maintain a cost-effective competitive landscape	Market- Based
Environmental Impact Mitigation Pricing	Incentivise reduction in environmental externalities	Sustainability

Table 7 Proposed Table for Refined Airport Charging Approach; Source: ACI, 2021

This conceptualisation of airport charges envisages a dynamic model where pricing strategies are intricately tied to market demands, competitive pressures, and environmental imperatives, transcending the traditional cost-recovery framework. However, the framework of the charges is guided by regulatory models (Table 8).

Regulatory Model Type	Description	Potential Outcomes
Heavy-Handed Models	These involve direct government intervention in setting airport charges.	
Direct Charge Setting	The government dictates the specific rates for airport charges.	Can inhibit economic efficiency, fail to allocate resources effectively, and limit environmental initiatives.
Rate-Base/Cost- Based	Charges are derived from detailed analyses of an airport's costs, capital expenditure, and traffic levels.	Time-consuming, demands in-depth financial scrutiny, and often leads to inflexible pricing structures.
Price/Revenue Cap	Charges are influenced by inflation rates and efficiency targets, typically using a CPI-X formula.	Although intended to be more flexible, often requires detailed forecasting and becomes as complex as rate-based models.
Government Approval	Government establishes each charge, possibly as part of a budgeting process.	May result in uniform charge increases or in-depth budget reviews to decide on airport finances.
Light-Handed Models	These are market-based approaches with minimal government intervention.	
Trigger Regulation/Price Monitoring	Uses the potential for regulatory intervention as a deterrent against unreasonable pricing.	Reactive regulation that depends on performance reviews, with intervention when charges harm social welfare.
Approval of Airport-Developed Charges	Airports propose charges internally, which are then subject to government review and approval.	Allows for internal development of charge structures but still requires final government sanction.
Economic Oversight	Contracts and agreements between airlines and airports, application of competition laws.	Ensures transparency and fairness, offers a structured process for information sharing, and provides mechanisms for resolving disputes.

Table 8 Airport regulations models and impact on charges; Source: ACI, 2021

ACI (2021) aimed to refine and enhance the structures and strategies for setting airport charges. There are recommendations addressing various aspects of charge formulation, from legal entitlements to the consideration of market dynamics and regulatory approaches, ensuring that charges are fair, competitive, and aligned with broader public and economic interests (Table 9).

Key Recommendations for Airport Charge Guidance (ACI)	Description
Consideration for the Public Interest	Charges should align with consumer interests, incentivising infrastructure investment, and maximising socio-economic benefits.
Entitlement to Set Charges	Airports must have the legal authority to establish and collect fees for their services and facilities.
Moving Beyond Strict Cost- Basing	Cost-based charging overlooks demand side factors; a shift to a more balanced approach considering market signals and incentives is advocated.
Market Needs Focus	Charges should be flexible and responsive, reflecting the competitive environment, and incentivising optimal use of resources.
Emphasising Commercial Agreements	Airport-airline commercial agreements often yield the most beneficial outcomes regarding charges and investments.
Competition Assessment	Oversight should recognise the competitive pressures airports face and determine if regulation is necessary.
Evaluating Airline Countervailing Power	The influence of airlines over airport charges should be acknowledged, considering their ability to reallocate capacity and their growing market concentration.

Key Recommendations for Airport Charge Guidance (ACI)	Description
Cost-Benefit Regulation Analysis	The necessity and efficacy of regulation should be justified through rigorous cost-benefit analysis.
Preference for Light-Handed Regulation	Where regulation is needed, less intrusive methods like trigger regulation or monitoring are preferable.
Favouring Dual Till Approaches	Dual till systems allow airports to use non-aeronautical revenue to support infrastructure development, incentivising passenger volume growth and service improvements.

Table 9 Key Recommendations for Airport Charge Guidance (ACI); Source: ACI, 2021

Airport charges are a fundamental aspect of aviation management, influencing the operations of airlines and the functionality of airports. These charges are levied to cover the costs associated with the use and maintenance of airport facilities, including runways, terminals, and air traffic control. The types of charges imposed can vary significantly, each designed to address different operational and strategic needs (Table 10). The structure of these charges plays a crucial role in balancing the interests of various stakeholders, including airlines, passengers, and airport authorities.

Charge Type	Description	Impact on Airports/Airlines
Weight-based Landing Charges	Traditional method based on aircraft weight.	Can disincentivise the use of larger aircraft; may not adjust well during traffic fluctuations.
Passenger-based Charges	Linked to terminal services and sometimes airfield services.	Encourages airlines to operate larger aircraft; adapts to traffic cycles; impacts passenger costs.
Security Charges	Implemented post-9/11; can be a significant proportion of total charges.	Covers increased security costs; usually charged per passenger; has a broad industry agreement on necessity.
Externality Charges	Noise or emission charges to fund environmental programs or incentivise airline behaviour.	Encourages environmentally friendly practices; funds airport environmental initiatives.
Charges Incentives	Marketing activities to grow traffic; often come with price incentives for new routes and capacities.	Promotes airport traffic growth; subject to safeguards and competition laws.
Peak Hour/Season Charges	Address congestion issues; charged during busy periods.	Manages demand; allocates slots to high value uses; potentially expands capacity.
Dual Till Pricing	Separates aeronautical and non-aeronautical revenues, leading to incentives for non-aero development.	Encourages efficient airport operations and development; can result in perverse outcomes in congested airports.

Table 10 Type of Charges and their impact; Source: ACI, 2022

On the other hand, airlines encounter a multitude of operational expenses that are both constant and fluctuating. Although these expenses may vary across different airlines and nations, the ACI identifies several principal categories of costs, including (Table 11):

Cost Category	Percentage
Flight Crew Salaries and Expenses	11.5%
Aircraft Fuel and Oil	17.7%
Flight Equipment Insurance	0.2%
Flight Equipment Rentals	4.4%
Other Expenses (Flight Operations)	2.7%
Flight Equipment Maintenance and Overhaul	9.3%
Depreciation and Amortisation	13.6%
User Charges	4.9%
Station Expenses	7.7%

Passenger Services	6.3%
Ticketing, Sales and Promotion	4.7%
General and Administrative	9.6%
Other Operating Expenses	7.3%

Table 11 Cost categories and their impact; Source: ACI, 2022

Among these, some expenses, such as aviation fuel and lubricants, vary with the frequency and range of flights. Notably, user fees—which comprise airport charges and air navigation service fees—constitute a mere 5% of the aggregate costs faced by airlines. For many cost divisions, airlines have little control over pricing, particularly for fuel, lubricants, and equipment maintenance. In 2018, the proportion of total expenses attributed to airport charges stood at 6.4%, a figure substantially lower than other expense categories, although the data from 2020 is skewed due to the impact of the COVID-19 pandemic. Additional insights from IATA for the year 2019 suggest that user fees have decreased in comparison to the preceding year (ACI, 2022).

The survey results from the ACI (2022) indicate the top three concerns related to economic regulation in the context of the COVID-19 pandemic in Africa.

1. **Inability to Adjust Prices Rapidly and Flexibly (#1 Choice):** This suggests that the foremost concern is the rigid nature of price-setting mechanisms in the face of drastic changes in the aviation market due to the pandemic. Airports and airlines are unable to quickly respond to the new market conditions by altering prices, which could be due to regulatory constraints or the structure of contracts and agreements in place.
2. **Obstacles to Future Investments Due to Inadequate Revenues (#2 Choice):** The second pressing issue is the financial strain that has led to insufficient funds for future investments. This could impact long-term growth and recovery plans as airports and airlines may not be able to invest in infrastructure, technology, and services that are critical for post-pandemic recovery and future resilience.
3. **Inability to Adjust Price Cap for New, Reduced Forecast of Traffic (#3 Choice):** The third issue revolves around the challenge of recalibrating price caps - a form of economic regulation that limits the charges airports can impose on airlines and passengers. The reduced forecast of traffic means that the current price caps may no longer be viable or reflective of the market realities, creating financial stress for airports constrained by these regulations.

Collectively, these results underscore the need for more dynamic regulatory frameworks that can adapt to sudden market changes, like those caused by the COVID-19 pandemic. They highlight the tension between pre-pandemic regulatory structures and the urgent need for flexibility and innovation in the face of unprecedented challenges in the aviation sector.

Comprehensive Airport Facilities and Services

Airports worldwide offer a wide array of facilities and services catering to the needs of passengers, airlines, shippers, visitors, and regulatory agencies. These facilities encompass landing and parking provisions, lighting, navigational aids, aerobridges, cargo handling areas, office spaces for airline operations, check-in counters, as well as a variety of passenger amenities, including duty-free shops, restaurants, foreign currency exchange booths, and more. The availability and sophistication of these facilities vary across airports, primarily influenced by the volume of traffic they handle and the administrative policies in place.

Airports, irrespective of their ownership status, impose fees for the use of their facilities. These fees are categorically divided into aeronautical and non-aeronautical charges, also referred to as traffic-related and non-traffic charges, respectively. Aeronautical charges directly impact airline operations, covering a range of essential services and facilities used in aircraft operations. Non-aeronautical charges, on the other hand, pertain to services that do not directly affect airline operations but contribute to the overall airport revenue (Figure 38).

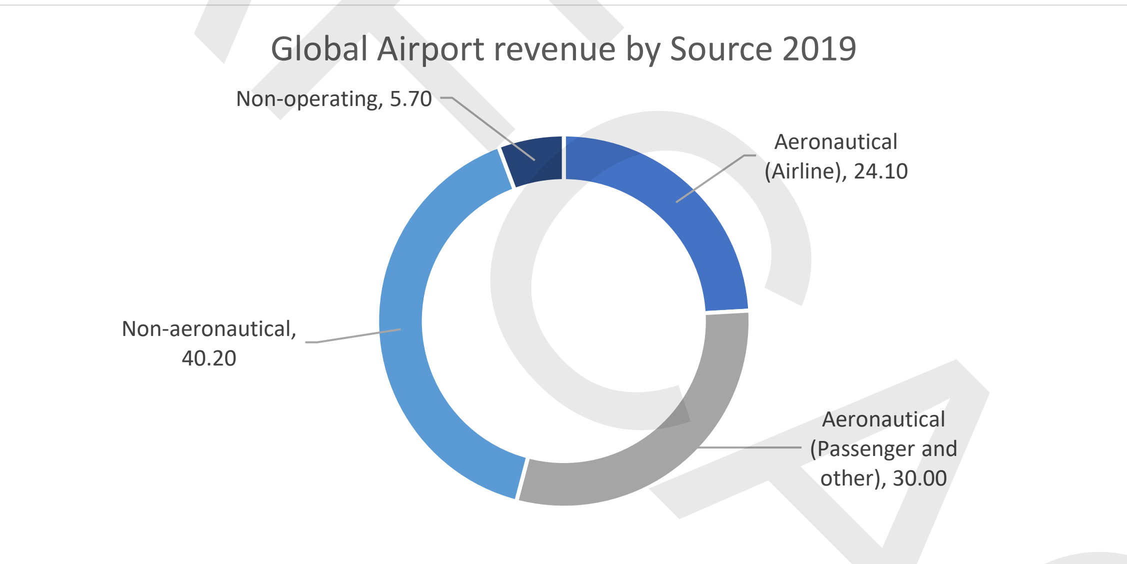
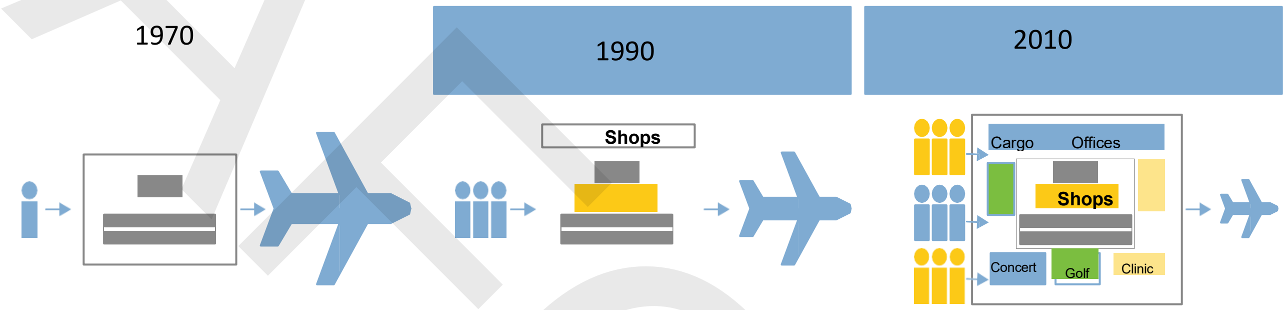


Figure 38 Global Airport Revenue by Source; Source: ACI, 2021

It is important to note that historically, airport charges represent a small proportion of airline costs, estimated at 4%. A significant portion, approximately 55%, of the total income of airports is accrued from aeronautical fees, which encompass charges related to both passengers and airlines. Although these charges levied on airlines are a crucial income stream for airports, they do not fully offset the operational expenses of the airports. When considering the broader revenue picture, it emerges that merely 24% of the airport's overall revenue stream is attributed to the fees imposed on airlines (Intervistas & ACI Policy Brief, 2021). This underscores the substantial contribution of non-aeronautical revenue sources to the financial health of airports (Figure 38).

The determination of aeronautical charges typically reflects the cost of providing the associated facilities and services. Conversely, non-aeronautical charges are often maximised based on market demand, except for charges for certain indispensable facilities. This dual charging system not only facilitates the smooth operation of airport services but also serves as a significant revenue source for airports, supporting their financial sustainability and capacity for continual improvement and expansion.

In the context of evolving airport revenue models, there has been a notable shift towards non-aeronautical sources becoming the predominant income stream for many airports, particularly in Europe, North America, and significant airports in Asia, the Middle East, and the Pacific regions. Airports experiencing high passenger traffic volumes tend to report a larger share of non-aeronautical revenues, a trend that escalates in parallel with traffic growth. This shift is generally regarded as positive, as it alleviates the financial burden on airlines by reducing the reliance on aeronautical charges. Below Samunderu (2023) proposes this scenario in Figure 39.



	1970	1990	2010
Goal	Handle aircraft and passengers	Increase revenue and profitability	Reduce dependency from aviation business cycles
Levers for growth	Capacity expansion; Process optimization; Attract new traffic	Expansion non-aviation revenues; Increase revenue per pax	Create new airport experience; Attract new sources of revenue and growth
Target customer	Passengers	**Passengers**	Beyond passengers
Relevance Non-Aviation	**<5 %**	>30 %	>70 %
Conclusion	**Slow growth and reduced margins from cost pressure**	**Higher margins but still high dependency from aviation business cycles**	**Broad, risk-reduced portfolio of diverse income streams**

Figure 39 Airport Revenue Model; Source: Samunderu (2023)

To further amplify the airport model, Samunderu (2023) illustrates a conceptual model in Figure 40 of an airport profit model reflecting streams of driving earnings.

Revenue			Costs
Regulated charges	**Passenger volumes**	**Non-aviation revenue**	
Charges determined by regulator: Airport (typically) able to influence, but not control Relationship with regulator is critical	**Air service marketing** Value proposition for airlines and other tenants **Passenger experience** Services and facilities that meet traveler expectations	**Retail** Direct management Rents, concessions Car parking **Real estate** Airport infrastructure (e.g. 'Cargo City') Non-aviation infrastructure (e.g. Business Park)	**Opex** Market-driven labour tariffs and flexible deployment Overhead reduction Sourcing optimisation **Capex** Optimise existing capacity utilisation before investing in new infrastructure Flexibility before "beauty"
No direct control	**Key to maximize airport performance**		

Figure 40 Airports: The Profit Model; Source: Samunderu, 2023

While it's possible that the Covid pandemic is behind us, there clearly remains volatility in the sector which is challenging the fundamental business model of the airport. There are two trends that could disrupt the airport business model of the near future (Greer, Rakas & Horvath, 2020; Eid, Salah, Barakat & Obrecht, 2022):

- The impact of sustainability issues on the passenger's mindset, and
- The 'dehubbing' of the dominant hub and spoke routing model.

Sustainability is no longer a 'nice to have' in the global airport business. Alternative, greener forms of transportation may capture air travel market share until aviation fuels become more emission-free, as passengers become more and more sustainability-conscious. It means airports must move fast and don't have the luxury of waiting five to ten years before developments mature. Thus, sustainability must also be an integral part of airport business strategies.

Heavily scaled international feeder networks may become impractical and more expensive to operate, while the development of aircraft technology increases the viability of point-to-point, and by extension, ultra-long-haul (ULH) operations (Percoco, 2020).

In light of technological disruption and redesigns and the potential competition from more environmentally-friendly forms of travel, airport business models will need to be reassessed.

Aeronautical Charges

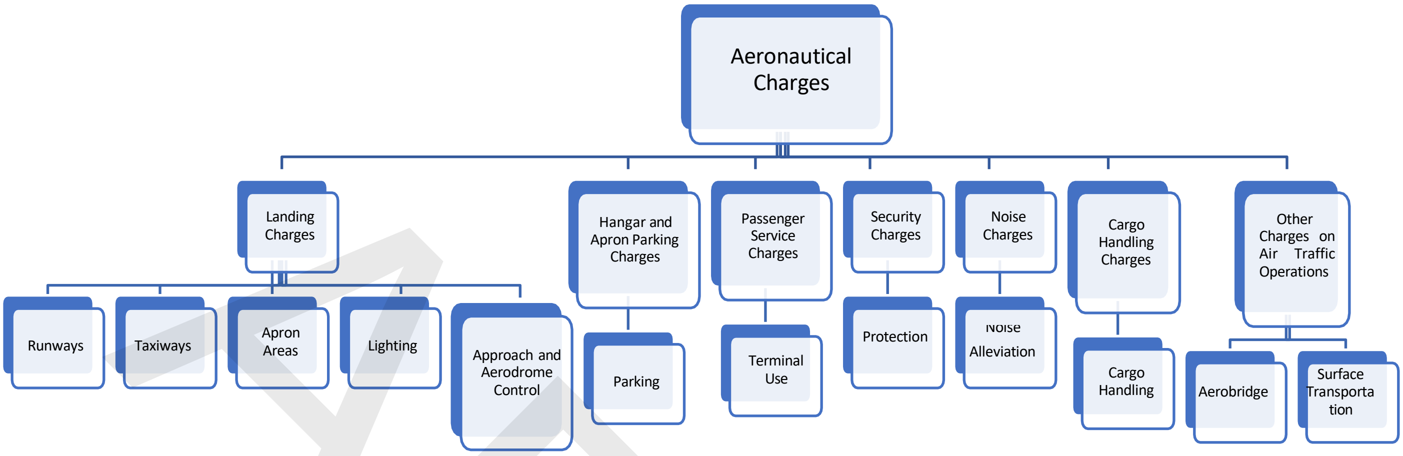


Figure 41 Aeronautical Charges; Source: Compiled by Samunderu, 2024

1. **Landing Charges**: Encompasses fees for the utilisation of runways, taxiways, and apron areas, inclusive of associated lighting and terminal air navigation services.
2. **Hangar and Apron Parking Charges**: Fees for the parking of aircraft and the use of airport hangars.
3. **Passenger Service Charges**: Levied for the use of terminal and other passenger processing facilities.
4. **Security Charges**: Aimed at ensuring the safety of passengers, airport personnel, aircraft, and airport infrastructure.
5. **Noise Charges**: Imposed to fund measures for mitigating noise pollution caused by aircraft operations.
6. **Cargo Handling Charges**: Cover the provision of cargo facilities, including storage and processing.
7. **Other Air Traffic Operation Charges**: Pertains to various additional facilities and services provided for aircraft operations, such as aerobridge usage and surface transportation between aircraft and terminals.

Non-Aeronautical Charges

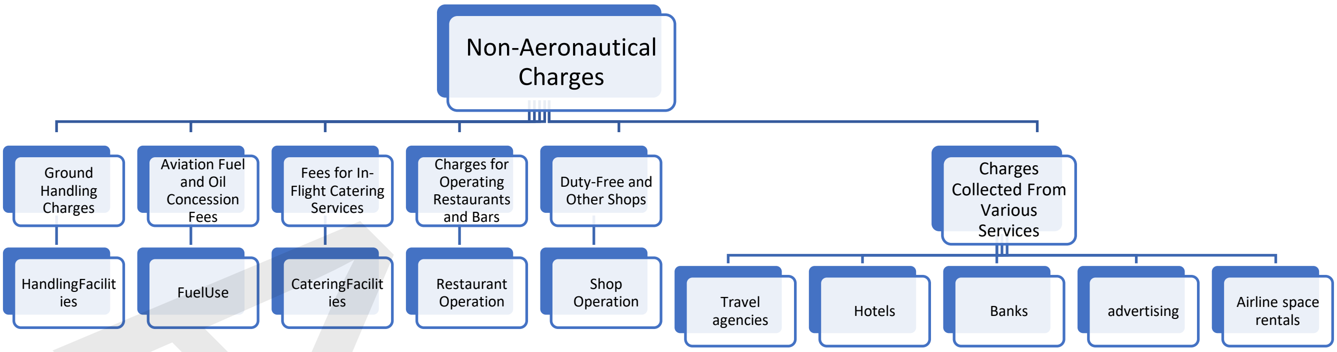


Figure 42 Non-Aeronautical Charges; Source: Compiled by Samunderu, 2024

1. **Ground Handling Charges**: For the use of airport facilities in aircraft handling and concessions for ground handling services.
2. **Aviation Fuel and Oil Concession Fees**: Include fees for the use of airport facilities for the storage and distribution of aviation fuels and lubricants.
3. **In-flight Catering and On-ground Food Service Charges**: Levied on facilities provided to in-flight caterers and commercial enterprises operating within the airport premises.
4. **Retail and Commercial Service Charges**: Encompass fees for operating duty-free shops, travel agencies, banking services, car rentals, parking, and other commercial activities within the airport.
5. **Advertising and Space Rental Fees**: For the rights to advertise within the airport and the leasing of space to airlines, cargo agents, and other businesses.

Regulation of Airport Revenues and the Financial Implications of COVID-19

In examining the financial structuring of airports within the African context, the prevalent administrative frameworks do not differentiate between 'single till' and 'dual till' systems in managing non-aeronautical revenues. Predominantly, African airports, functioning as extensions of governmental departments, are incorporated into the broader financial apparatus of annual government budgeting processes. The corporations overseeing airport networks, devoid of shareholders, face the imperative of retaining generated income—whether aeronautical or non-aeronautical—to underwrite capital expenditure, operational costs, and service enhancement initiatives. One of the most essential costs for the airlines is Fuel and Oil (17.70%) as well as Depreciation and Amortisation (13.60%) (Figure 43).

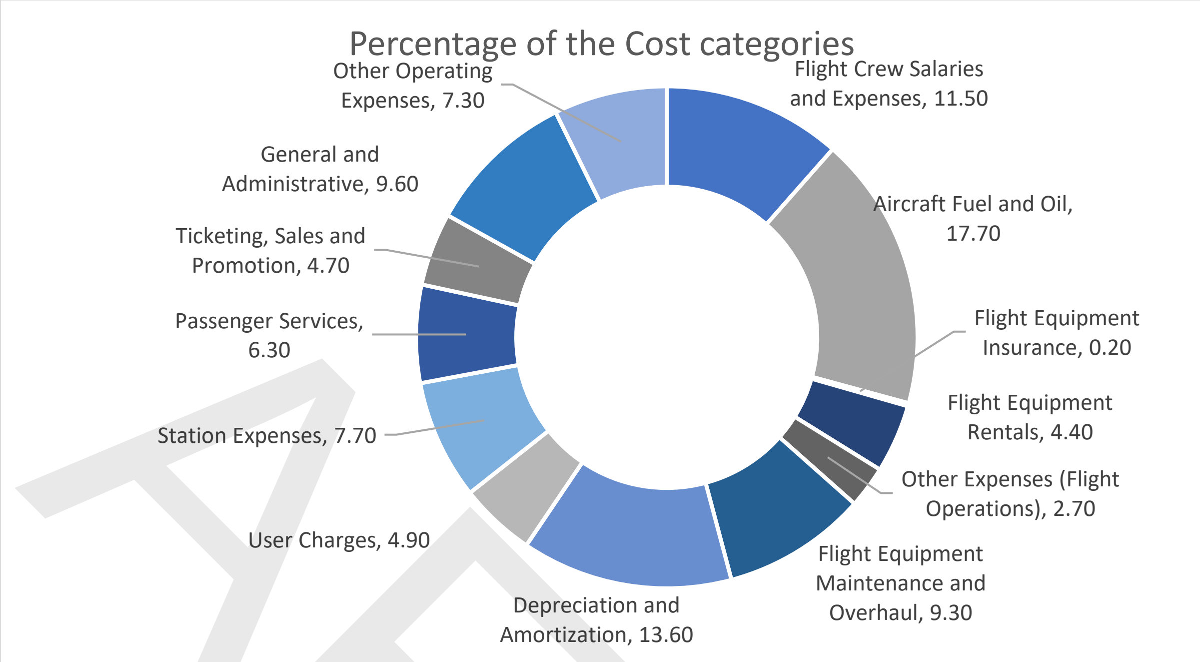


Figure 43 Cost categories by percentage; Source: ACI, 2022

COVID-19 precipitated a drastic contraction in passenger volumes and aeronautical revenues in 2020, dwindling to a mere 34% relative to the figures of 2019 within the African region. A modest rebound in 2021 saw figures recover to 51% of the pre-pandemic levels, with projections for 2022 aiming towards a 75% restoration (ACI, 2022). The necessity for clear, unequivocal policies regarding airport charges and taxation is underscored by the need to ensure that anticipated growth trajectories materialise. The retention of airport revenues by the airports themselves is crucial, eschewing any diversion to non-specific government expenditures.

From 2005 to 2019, the African airline market witnessed a substantial increase in the presence of low-cost carriers (LCCs), with their market share escalating from 2.3% to 13%. In stark contrast to regions like the Americas, Europe, and Asia, the African aviation sector has not undergone substantial airline consolidation (ACI, 2022).

African Aviation Sector

In 2019, African airports facilitated the movement of over 229 million passengers, marking a 6% increase from the preceding year. International travellers constituted 67% of this number. The aviation market within the continent is predominantly served by traditional, full-service network carriers, while budget airlines are emerging, having captured a 13% market share by seating capacity in 2019 and showing signs of growth.

Projections for the next two decades anticipate an annual growth rate of 3.6% from 2025 to 2040. This expansion is predicated upon the burgeoning middle class and an increasing inclination towards travel. Nevertheless, such prospective growth is potentially vulnerable to the constraints posed by regulatory frameworks that fail to nurture a vigorous aviation industry.

In terms of governance, African aviation primarily features government-owned airport networks, with over 99% of the continent's airports falling under this category, typically managed directly by governmental bodies or through state corporations. Only a modest fraction of passenger traffic—10%—experiences airports that incorporate private sector involvement.

The determination of airport fees in the region remains predominantly under governmental jurisdiction, with most airports necessitating state approval for any modifications in their charges. It is crucial to discern the difference between airport fees and government-imposed taxes, which are often conflated. The former's proceeds are allocated to the airports themselves, despite the entity imposing the fee. A preceding analysis by ACI on aviation taxation highlighted instances of double taxation within some African nations, illustrating challenging tax regime. Below Table 12 illustrates the disparities of TCFs applied across the African airports. However, Mogadishu airport stands out as exhibiting high TCFs despite the fact that it has extremely low air traffic volume and modestly developed infrastructure. This subsequently, raises the justification parameters used to determine TCFs regimes within air transport in Africa.

Airport	**Airport Code**	**Country**	**Charges (USD)**	**Average Per Quartile Range (∑)**
Upper Quartile				**1325.97**
Mogadishu	MGQ	Somalia	2090.56	
Lusaka	LUN	Zambia	1451.88	
Luanda	LAD	Angola	1282.76	
Conackry	CKY	Guinea	1074.21	
Casablanca	CMN	Morocco	1029.42	
N'djamena	NDJ	Chad	1026.97	
Upper Mid Quartile				**887.56**
Tunis	TUN	Tunisia	949.43	
Bangui	BGF	Central African Republic	919.48	
Malabo	SSG	Equatorial Guinea	899.39	
Bamako	BKO	Mali	885.29	
Brazzaville	BZV	Republic of the Congo	864.08	
Moroni	HAH	Comoros	807.67	
Lower Mid Quartile				**536.49**
Freetown	FNA	Sierra Leone	587.38	

Airport	Airport Code	Country	Charges (USD)	Average Per Quartile Range (∑)
Abidjan	ABJ	Cote d'Ivoire (Ivory Coast)	565.71	
Libreville	LBV	Gabon	558.49	
Kigali	KGL	Rwanda	515.08	
Monrovia	ROB	Liberia	497.40	
Djibouti	JIB	Djibouti	494.85	
Lower Quartile				**36.52**
Maseru	MSU	Lesotho	47.05	
Khartoum	KRT	Sudan	42.81	
Manzini	SHO	Eswatini (Swaziland)	19.69	

Table 12 TCFs across the African airports; Source: AFRAA, 2020

Despite the anticipated expansion within the aviation sector in Africa, airlines contend with onerous fiscal pressures, attributing elevated operational costs to excessive airport charges. Pre-pandemic data highlighted a trend of decreasing charges; however, the region still reported the highest average real passenger charges globally. Government entities, both at public and private airstrips, predominantly dictate these fees, leaving little leeway for airports themselves to influence the nature or scale of the levies. A pervasive lack of private sector engagement in airport investment is often ascribed to these fiscal uncertainties and perceived risks.

The delineation between what qualifies as an airport charge versus a tax is often blurred within the African context. The primary concern rests with the end-recipient of the collected funds. It is common practice for States to treat aviation as a non-essential luxury, introducing taxes for State revenues as opposed to being reinvested into the aviation infrastructure. This perception undermines the role aviation plays in bolstering regional economies and fostering social integration. The repercussions are felt not only in the stagnation of airport infrastructure but also within the wider aviation industry and the economy.

Nigeria is illustrative of this difference between airport charges and taxes, where taxes exceed airport charges and constitute a significant fraction of the airfare. This taxation, substantial when evaluated against the base fare, inflates the cost of travel and moderates the sector's growth. A graphic representation, based on ACI World's analysis, succinctly captures this dynamic, exemplifying how taxes form 21% of the total airfare (ACI, 2022). This percentage increases sharply to 37% when measured solely on the base fare. Such a fiscal environment could potentially deter investment and stunt sectoral growth, undermining the broader economic development that the aviation industry could stimulate.

In Africa, the aviation sector frequently falls under the direct purview of governmental control, spanning ownership and management. This can result in an alignment of airline and airport administration under a unified governmental umbrella. However, when those at the helm lack in-depth industry experience, the repercussions can lead to inefficiencies and potential mismanagement within the aviation ecosystem.

Challenges Influencing Airport Charges in Africa

The state of airport charges in Africa is not an isolated issue but rather a symptom of broader industry challenges.

- **Restricted Air Access**: Despite initiatives such as the Single African Air Transport Market (SAATM), actual progress in liberalising air access has been sluggish. Restrictive bilateral air service agreements further exacerbate the situation, stifling the potential for industry growth and development.
- **Financial Viability of Smaller Airports**: The African continent is dotted with smaller airports, many of which cater to less than a million passengers annually. These airports face a financial conundrum: the infrastructure and operational costs remain constant irrespective of passenger volume, rendering them financially unsustainable. This leads to heightened airport charges as a means to cover the high costs associated with maintaining essential infrastructure and management services with limited throughput.

These factors collectively contribute to the high airport charges, underscoring the need for strategic policy reforms to foster a more liberalised and financially sustainable aviation industry in Africa.

Air Navigation Service Charges

In Africa, air navigation service charges are not uniform, varying significantly from one country to another, except in regions controlled by ASECNA (Agency for Aerial Navigation Safety in Africa and Madagascar), where charges are standardised across 17 member states. These charges are crucial as they are levied to cover the costs associated with services provided en- route, during approach, and in terminal areas, which are essential for the safe operation of flights.

ASECNA Region: Utilises a common formula for calculating charges, promoting transparency and stability in costs related to air navigation services. For example, a flight in ASECNA airspace would calculate charges based on aircraft weight and distance, with specific rates for domestic, within ASECNA, and international flights.

Northern Africa: Countries like Algeria, Egypt, and Morocco use a formula that incorporates distance and aircraft weight to compute en-route charges. In contrast, countries such as Libya, Sudan, and Tunisia charge based on aircraft weight alone.

Eastern and Southern Africa: These regions show diverse charging formulas, often based on a combination of aircraft weight, distance, and sometimes fixed rates regardless of the distance flown.

The financial outlook for air navigation services, often managed by distinct entities across various nations, has historically been less than optimal. However, improvements are being observed globally, attributed mainly to a concerted effort by states to recoup the costs of air navigation services. This, coupled with the continuous increase in air traffic and the adoption of approach and aerodrome control charges by more states, is contributing to a gradual enhancement of financial stability in this sector (Kesharwani, 2001).

Airports are unique in their requirement for large land areas near metropolitan centres, regardless of traffic volume, making expansion and new development increasingly challenging and costly due to land scarcity and environmental considerations. The capital investment in airport infrastructure is substantial and often irreversible, distinguishing it from the more flexible operational models of airlines. This inherent monopoly nature of airports necessitates regulation to prevent abuse of power and ensure fair service provision to users.

According to the ICAO's Policies on Charges for Airports and Air Navigation Services (2012), the airport charges are as follows (Table 13):

Airport Charges	***Principles/Considerations***
Landing Charges	1. Based on the aircraft weight formula, consider the maximum certificated take-off weight. 2. Allowance for a fixed charge or a combination with a weight-related element. 3. Consistency with policies on charges for air navigation services. 4. Stage length flown should not influence landing charges.
Parking and Hangar Charges	1. Determined based on maximum permissible take-off weight, aircraft dimensions, and length of stay. 2. Local determination of free parking time post-landing.
Passenger Service Charges	1. Consider efficiency in collecting charges to avoid airport delays. 2. Consider levying charges through aircraft operators if direct passenger collection poses facilitation issues.
Security Charges	1. States are responsible for ensuring the implementation of security measures. 2. Consultations before assuming security costs. 3. Costs recovery from users in a fair and equitable manner related to the costs of security services. 4. No charging for general security functions performed by States. 5. Non- discrimination in charging for security levels. 5. The method used for security cost recovery should be discretionary. 6. Security charges may be levied as additions or separate charges with proper identification.

Airport Charges	*Principles/Considerations*
Noise-related Charges	1. Levied at airports facing noise problems associated with landing fees. 2. Designed to recover costs for noise alleviation or prevention, non-discriminatory.
Emissions-related Aircraft Charges	1. Applied by states for local air quality problems, designed to recover mitigation costs. 2. Transparent cost basis, consultations with stakeholders, and fair and non- discriminatory charges. 3. Association with landing charges or separate charges, with proper identification of costs. 4. Scheme based on accurate aircraft operation data or standardised LTO cycle times. 5. Reporting the existence of charging schemes by states imposing LAQ charges on internationally operated aircraft.
Development of Revenues from Concessions,	1. Non-aeronautical revenue development is recommended, excluding concessions directly associated with air transport services.
Rental of Premises, and "Free Zones"	
Fuel Concession Fees	1. Recognition as aeronautical charges, consideration of fixed fees reflecting concession value. 2. Avoidance of discriminatory effects on fuel suppliers and aircraft operators.

Table 13 Airport charges; Source: ICAO, 2012

As a comparison, European legislation has constructed a complicated mechanism to determine air navigation charges. The charges are based on traffic forecasts, which are prepared on a regular basis. If the actual income from charges is higher than the costs, the air navigation service provider is allowed to keep all or part of the money. Conversely, they bear part of the risk if the charges do not cover their costs. This form of regulation is intended to provide air navigation service providers with a performance incentive (Eurocontrol, 2025).

If traffic volumes develop differently than planned, air navigation service providers and airlines share the risk. A tiered model is used. If any fluctuations in the traffic volumes are outside the specified range, DFS must raise or lower the charges with a two-year delay. Additional revenue will then be returned to users through lower charges, and reduced revenue will be offset by higher charges (EUROCONTROL, 2025).

In Europe, in 2025, 26 Terminal Charging Zones (TCZs) (188 airports) are subject to performance and charging schemes in RP4 (generally one per State; two for France, Italy and Poland; and three for Romania). Eight SES States (Bulgaria, Croatia, Cyprus, Estonia, Latvia, Lithuania, Slovakia, and Slovenia) have decided not to apply performance and charging schemes to their Terminal Air Navigation Service since, within their territory, there are no airports with 80 000 IFR air transport movements or more per year. The number of airports per TCZ ranges from one in several SES States to 52 airports in the French TCZ 2 (EUROCONTROL, 2025).

Fuel Taxes

Jet fuel is a globally produced commodity, and its pricing is intricately tied to factors such as production and delivery locations. It exhibits a strong correlation with diesel fuel and heating oil, sharing similar trends in spot prices with only marginal differences. The primary components influencing jet fuel prices include the market price of crude oil, refining costs, distribution expenses, charges, fees, taxes, and the supplier's margin. Nevertheless, the final price paid by an airline is also impacted by variables such as the airline's credit history, rating, buy volume, and location (Davidson, Newes, Schwab, & Vimmerstedt, 2014).

The price of jet fuel is controlled by supply and demand in the market, similar to that of any other commodity. The logistics of oil production can lead to sluggish supply responses to sudden shifts in demand. The economic downturn in 2008 serves as an illustrative example, where soaring jet fuel prices coincided with a significant decline in leisure and business passenger numbers. Despite the drop in demand, the supply of jet fuel did not adjust promptly, resulting in substantial quantities being stored on land and in tankers at sea. When the economy began recovering, the excess stock contributed to keeping prices low initially, but they have been on an upward trajectory since 2009.

Challenges in jet fuel supply are exacerbated by major oil companies like Exxon, Chevron, and Shell, which prioritise investments in exploration and production (upstream sector) over building new refineries (Davidson et al., 2014). These companies have divested downstream assets, including refineries and retail outlets, in multiple countries. Although new and smaller companies are entering the market, their lack of expertise in supply control raises concerns among some airlines, who fear potential price impacts due to the learning curve of these newcomers.

According to IATA's Economic Briefing from February 2010, a poll done by the organisation found that fuel made up around 32.3% of the overall operating cost in 2008, which was higher than the previous year's 27.4% (IATA, 2010).

Meanwhile, labour costs experienced a decrease from 22.8% in 2007 to 20.1% in 2008. This shift highlights a significant change in cost distribution, considering that between 2001 and 2003, fuel costs constituted only 12-13% of total costs. The substantial increase in the share of fuel costs is attributed to the surge in jet fuel prices from USD 34.7 in 2003 to USD 126.7 in 2008, underscoring the profound impact of rising fuel prices on airlines' overall cost structures (IATA, 2010).

More recently, according to IATA (2024 f), the three biggest costs for airlines globally are aircraft fuel and oil, depreciation and amortization, and flight salaries and expenses. Aircraft fuel and oil account for a substantial 28.7% of total airline costs, highlighting the significant impact of fuel prices on operational expenses. Meanwhile, depreciation and amortization make up 9.1%, followed closely by flight crew salaries and expenses at 8.6%

The cost breakdown of airlines varies significantly by region. For instance, in Latin America and the Caribbean, aircraft fuel forms 36.3% of total airline costs, compared to 25.5% in North America (IATA 2024f). See Figure 44 below.

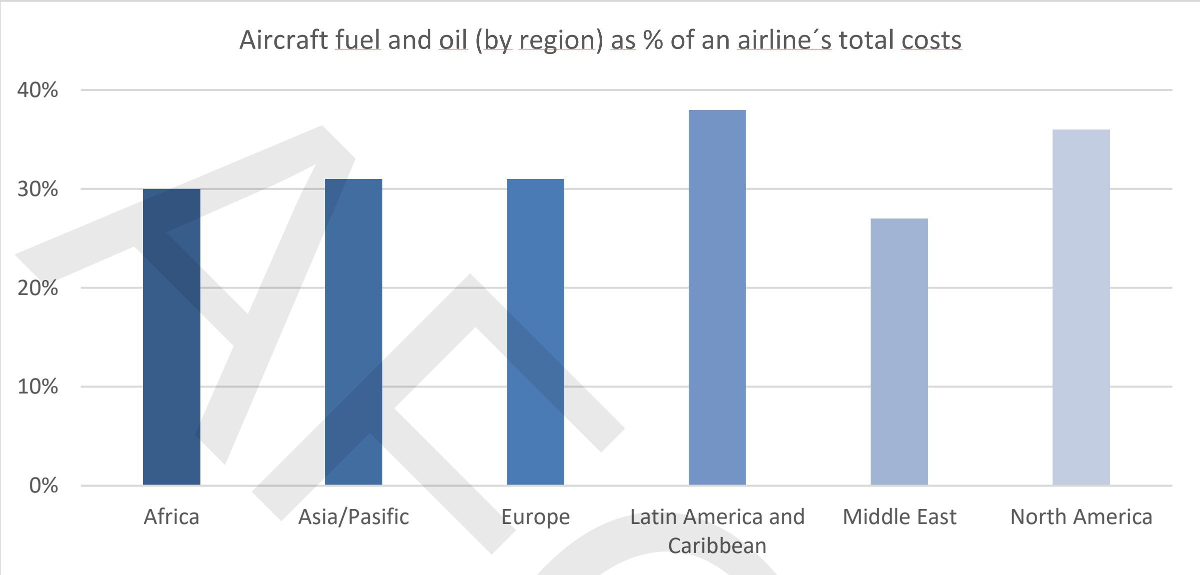


Figure 44 Aircraft fuel and oil (by region) as % of an airline´s total costs; Source: IATA 2024f

Typically, airlines engage in short-term contracts with fuel suppliers, procuring fuel based on the monthly prices quoted by Platts. However, these prices are characterised by volatility and unpredictability, rendering airlines as price-takers. In response to this challenge, airlines have limited options to either avoid or mitigate the adverse effects of fluctuating fuel prices.

Challenges and Prospects of African Aviation Development

Africa, with its 15% share of the worldwide population and 20% coverage of the world's territory, has an aviation industry that accounts for a mere 3% of the global market. The continent, however, holds immense potential for commercial aviation development, with a burgeoning population and expansive landmass (ADBG, 2019). From a global perspective, in 2023, the global air traffic passenger demand grew by over 36% compared to the previous year, when passenger demand increased by nearly 64.3% (IATA, 2024). This figure was forecast to grow by approximately 12% in 2024 (See Figure 45 below).

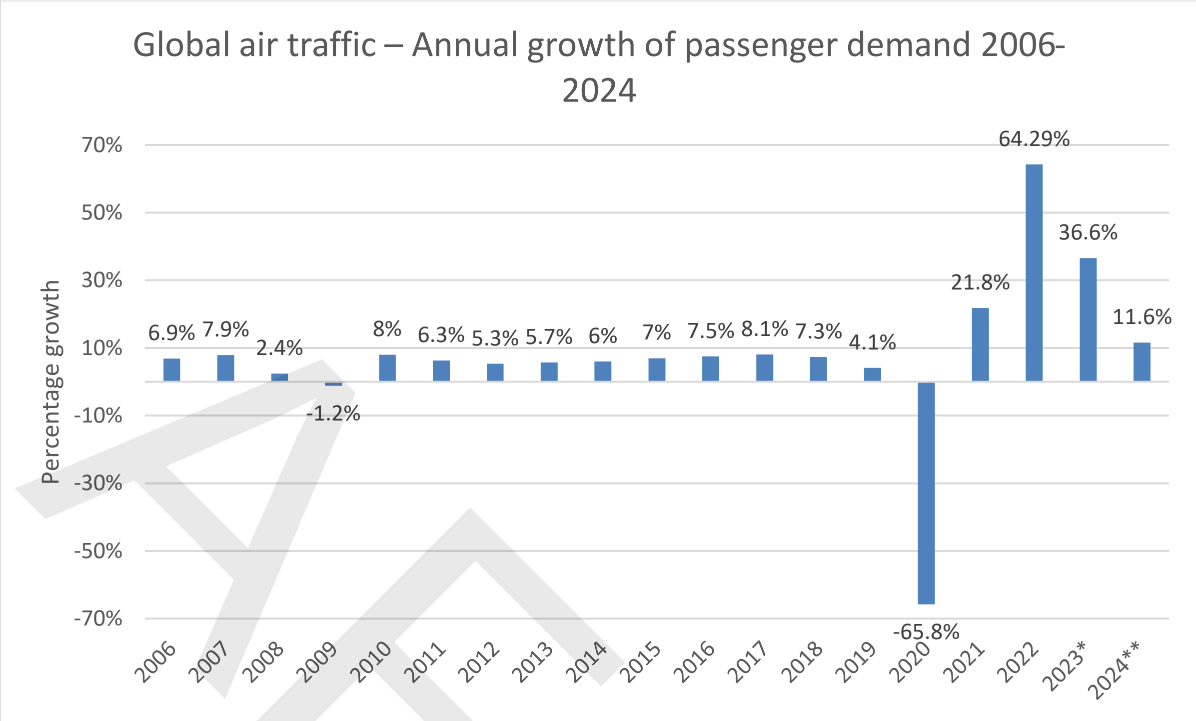


Figure 45 Global air traffic – Annual growth of passenger demand 2006-2024; Source: IATA, 2024d

In recent years, the African aviation industry has witnessed robust growth, boasting a Compound Annual Growth Rate (CAGR) of 4.8%. This growth trajectory is indicative of the sector's potential for further expansion, aligning with demographic trends and the vast expanse of available land. Despite the promising trajectory, the African air transport sector faces substantial challenges that hinder its development. Key obstacles include the delicate balance between profitability and affordability of air transport, limited market access, infrastructure constraints, and inadequate safety standards.

Recognising the significant role of the aviation sector in economic development, there is a pressing need for comprehensive reforms across various stakeholders in African aviation. These reforms are essential to address challenges and unlock the full potential of the industry. To address the challenges, Africa is undertaking strategic initiatives such as the SAATM. It aims to facilitate the opening up of African skies, providing a regulatory framework for market liberalisation.

Beyond regulatory changes, the development of the African aviation sector requires a comprehensive and coordinated approach. This includes reforms in regulatory and policy frameworks, as well as substantial enhancements in infrastructure. Despite the current challenges, long-term market outlooks are optimistic, predicting exceptional growth rates in air
traffic once African airspace is fully deregulated. This highlights the possibility for the continent to become an important participant in the worldwide aviation industry, contributing to both economic expansion and improved connectivity.

The African market faces a notable challenge with poor comparative operating yields, particularly within the ECOWAS (Economic Community of West African States) Region. Several factors contribute to this predicament, leading to financial strain on African carriers (ADBG, 2019).

1. *Expensive Aviation Fuel:* Aviation fuel costs in Africa are, on average, approximately 20% higher than those in Europe. This substantial cost difference directly impacts the operational expenses of airlines, affecting their competitiveness and financial viability.

2. *High Navigation and Airport Fees:* Air navigation and airport fees and charges in Africa also present a significant financial burden, exceeding those in Europe by around 20%. These elevated costs further add to the operational challenges faced by African carriers, affecting their overall profitability.

3. *Elevated Staff Costs:* High staff costs contribute to the poor operating yield, stemming from a shortage of locally based skilled staff and potential overmanning. The scarcity of skilled personnel necessitates higher wages, placing an additional strain on the financial health of African airlines.

4. *Other Costs:* Various additional costs, including maintenance, commercial expenses, and more, are, on average, 50% higher in Africa compared to Europe. This cumulative increase in operational costs intensifies the financial pressure on African carriers, impacting their ability to achieve a favourable operating yield.

The combination of these incremental costs, coupled with relatively low air transport demand, significantly affects the operating yield of African carriers. In attempts to break even, airlines often resort to increasing fares. However, this strategy tends to reduce demand, leading to poor route economics characterised by low load factors, typically averaging 60% or less, and inefficient aircraft utilisation. To tackle these difficulties, a comprehensive approach is needed, which includes implementing initiatives to reduce costs, improving operational efficiency, and implementing targeted interventions in the wider aviation ecosystem.

To address the elevated costs of jet fuel, several pivotal measures are suggested by the study of IATA (2019):

✓ The introduction of open competition at both the upstream and downstream segments of the jet fuel supply chain, is complemented by enhanced logistical arrangements and diversified supply pathways.

✓ Harmonisation with bilateral service accords stipulates the exemption of all forms of taxation on jet fuel provided to carriers operating international flights.

✓ The adoption of a transparent pricing formula that draws upon quotations from esteemed Price Reporting Agencies like Platts and Argus ensures that pricing reflects market standards.

✓ The implementation of publicly disclosed fuel surcharges that accurately reflect the expenses associated with the jet fuel infrastructure, thereby fostering cost transparency.

Customs Duties on Aircraft Spare Parts

In the context of customs duties on aircraft spare parts, the Convention on International Civil Aviation provides critical insights. According to Article 24, aircraft on a flight to, from, or across the territory of another contracting state are temporarily exempted from customs duty. This exemption also extends to fuel, lubricating oils, spare parts, regular equipment, and aircraft stores retained on board upon arrival and departure from the territory of that state. However, this exemption does not apply to any quantities or articles unloaded except in accordance with the state's customs regulations. Moreover, spare parts and equipment imported for incorporation in or use on an aircraft engaged in international air navigation are also admitted free of customs duty, subject to the regulations of the importing state, which may include keeping the articles under customs supervision and control.

The International Civil Aviation Organisation (ICAO) Assembly, in its first session in 1947, adopted Resolution A1-42, addressing onerous economic burdens on international air transport, including double taxation and similar burdens on fuel and equipment not consumed within the jurisdiction of the taxing country.

Furthermore, it is stipulated that when an aircraft registered in one Contracting State or leased or chartered by an operator of that State is engaged in international air transport to, from, or through another Contracting State's territory, its fuel, lubricants, and other consumable technical supplies shall be exempt from customs or other duties on a reciprocal basis (Abeyratne, 2014). In cases where such duties are initially imposed, they shall be refunded under specific conditions outlined in sub-paragraphs i), ii), and iii). These provisions apply whether the aircraft is engaged in an individual flight or in the operation of an air service, whether or not it is operating for remuneration. Contracting States are encouraged to apply these exemptions to the maximum extent possible to all aircraft on their arrival from and departure from other States.

The customs duties and taxes on imported goods, including aircraft spare parts, in Cameroon involve complex procedures. Specifically for transport engines like planes, the customs value is based on several factors. The value is determined as the transaction price, which includes provisions for the crew, their wages, return transport fare, and fuel price. This comprehensive valuation method takes into account a range of costs associated with the transportation of the aircraft or its components, ensuring a thorough assessment for customs purposes.

This approach reflects the broader complexities inherent in Cameroon's customs duties and taxation system, where the valuation and taxation of imported goods, including aircraft spare parts, are subject to detailed and multifaceted procedures (Fuli, 2022). These processes aim to accurately reflect the costs and values associated with imported goods, ensuring that customs duties and taxes are levied in a manner that is fair and representative of the goods' true worth and the associated costs of bringing them into the country.

For example, tax exemptions are accorded in the EAC Customs Management Act (CMA) exemption regime, and the importation of aircraft spare parts falls under this framework (www.rra.gov.rw). This means that, aircraft, aircraft engines, parts and accessories thereof air navigational instruments; lighting, radio and radar apparatus and equipment of specialised nature for the repair, maintenance and servicing of an aircraft on the ground; ground signs, stairways for boarding aircraft, imported solely for use in connection with aircraft; catering stores, such as luncheon boxes, cardboard trays, paper plates, paper napkins, imported for use by any airline; any of the following goods, which are imported for use by an approved ground handler or caterer: equipment of a specialised nature for repairs; maintenance and servicing of an aircraft.

Specialised aircraft loading and unloading equipment and stairways for boarding and loading aircraft. Aircraft spare parts are imported by aircraft operators or persons engaged in the business of aircraft maintenance. Provided that such spare parts shall be imported on the recommendation of the authority responsible for civil aviation in the Partner State and in such quantities as the Commissioner may specify.

To illustrate the varied tax regimes in Africa related to air transport, ECOWAS has its own jurisdiction. Airline operators have disclosed that the Nigerian Customs Service (NCS) generates over USD 1 billion (NGN 1.6 trillion) annually from levies and taxes imposed on importation of aircraft and aircraft spares, despite the zero waivers given to the airlines, as contained in the Finance Act of 2020.

Airlines that made the disclosure said they paid 1.5% which includes 1% ECOWAS Trade Liberalisation Scheme (ETLS) and 0.5% Comprehensive Imports Supervision Scheme (CISS), which amounts to over USD 1 billion annually. They indicated Customs insisted that the levies and taxes were obligatory charges on spares and aircraft, and not part of the surcharges waived for the airlines. Thus, the costs are reflected in the tickets, which makes travellers pay more, adding that the taxes are a disincentive to aircraft acquisition, considering the low operational capital at the behest of most airline operators (allafrica.com).

In 2021, the Nigeria Customs Service explained that airlines registered in Nigeria and providing commercial air transport services were entitled to duty-free importation of their aircraft, engines, spare parts and components, purchased or leased, but explained that Section 39 of the Second Schedule of the Finance Act as amended, did not grant concession on ECOWAS Trade Liberalisation Scheme (ETLS) and Comprehensive Imports Supervision Scheme (CISS).

For instance, in South Africa – Africa's largest Business Aviation market – there are no taxes or duties payable to the South African Revenue Service (SARS) if an aircraft being sold is in the country, and such sale is between a South African resident and a non-resident. If a foreign supplier of an aircraft leases the aircraft in the country to a South African lessee, the foreign supplier does not have to register for VAT and charge VAT on the lease amount – provided certain conditions are met (www.avbuyer.com).

In Kenya, meanwhile, VAT is charged pursuant to provisions of the VAT Act on taxable supplies made by a registered person. Kenya is a Partner State of the East African Community. As such, import duty is charged pursuant to the East African Community Common External Tariff (EACCET) at various rates (i.e. 0%, 10%, 25%, or 35%) on an ad valorem basis, on the customs value of the goods, and the nature and description of the goods as set out in the EACCET. If the buyer of the aircraft is in a different jurisdiction and is exporting the aircraft from Kenya, “the export would be considered to be a supply, and such supply would be zero-rated as the exportation of goods under Part A of the Second Schedule of the VAT Act is a zero-rated supply (Allafrica.com, 2025).

In 2024 Kenya proposed a 16% VAT on several services within the aviation industry. The proposed VAT would affect a wide range of services, including aircraft services, spare parts, air ticketing, and certain tourism-related activities, raising concerns about its potential negative impact on domestic travel and the broader tourism sector (KATA, 2024). According to KATA (2024), Among the services set to be taxed are aircraft with an unladen weight exceeding 2,000kgs but not exceeding 15,000kgs, direction-finding compasses, aircraft appliances, and spare parts imported by aircraft operators.

The question that resonates from the harmonisation of the African aviation tax regime, is whether some African countries offer more buyer friendly tax conditions. Firstly, this is beyond the scope of this study and secondly, it would be very difficult to classify a specific country or region in Africa as being “buyer friendly” in terms of tax conditions, hence there is a need to undertake a jurisdictional comparative analysis (Samunderu, 2024).

While in the US, aircraft buyers may plan to deliver airplanes to states with more favourable tax environments mitigating the impact of high sales taxes in their home state, which is not possible in Africa. The continent is made up of various countries, each with its own Civil Aviation Authority managing rules, regulations, and registrations.

From a literature perspective, a study by Rahmawati et al. (2019) provides an in-depth analysis of the impact of import duty exemptions on aircraft spare parts in Indonesia. The Indonesian government, through PMK No.35/2016, reduced the import tariffs for 21 tariff posts related to aircraft spare parts to 0%. This policy aimed to boost the competitiveness of the Maintenance, Repair, and Overhaul (MRO) industry in Indonesia.

The study reveals that the exemption of import duties on aircraft spare parts significantly contributed to the growth of the domestic MRO industry. Prior to the exemption, in 2013, the national MRO contribution was only 30%, but by 2016, it increased to 49%, and in 2017, it reached 51%, equivalent to USD 1.1 billion. The remaining 49% was attributed to foreign MRO services. This growth indicates that the reduction of import duties on aircraft spare parts played a crucial role in enhancing the domestic MRO industry's competitiveness (Rahmawati et al., 2019).

However, there are also challenges in the implementation of this policy, particularly in the administrative procedures for tariff exemption submissions. The long administrative process to obtain a 0% tariff facility impacted the minimum aircraft downtime, a critical factor in the MRO industry. For instance, MROs in the Free Trade Zone (FTZ) area could take advantage of the zero percent tariff facility more easily, thereby achieving minimum aircraft downtime. In contrast, for aircraft operating in domestic areas, customers were still required to apply for import tariff exemptions, a process that could take 2-3 days until the tariff exemption agreement was reached.

Furthermore, by 2015, with the addition of 21 tariff posts, aircraft spare parts included in the 312 HS code category obtained tariff exemption facilities for 92 HS codes, leaving 220 HS codes without a 0% import tariff. The need for selection of spare parts prioritised for tariff reduction is needed to ensure that the tariff reduction does not adversely affect government finances and maximises the benefits for the MRO industry's competitiveness.

In a broader context, Article 24 of the Convention on International Civil Aviation details that spare parts and equipment imported for use on aircraft engaged in international air navigation should be admitted free of customs duty, subject to the regulations of the importing state. This exemption aims to facilitate international air transport by reducing the economic burden on airlines and MRO service providers.

Finally, a recent analysis (Aviation Week, 2019) on MRO growth shows Africa still lagging behind the rest of other regions and this means operators in particular domestic ones rely on foreign imports due to a limited MRO supplier base within the continent. Figure 46 below illustrates the growth pattern across regions. The statistic gives the compound annual growth rate of the aircraft maintenance, repair and overhaul (MRO) market between 2019 and 2028, by region. During this period, the aircraft MRO market in India is expected to show a growth rate of 9.5% and Africa 0.7%.

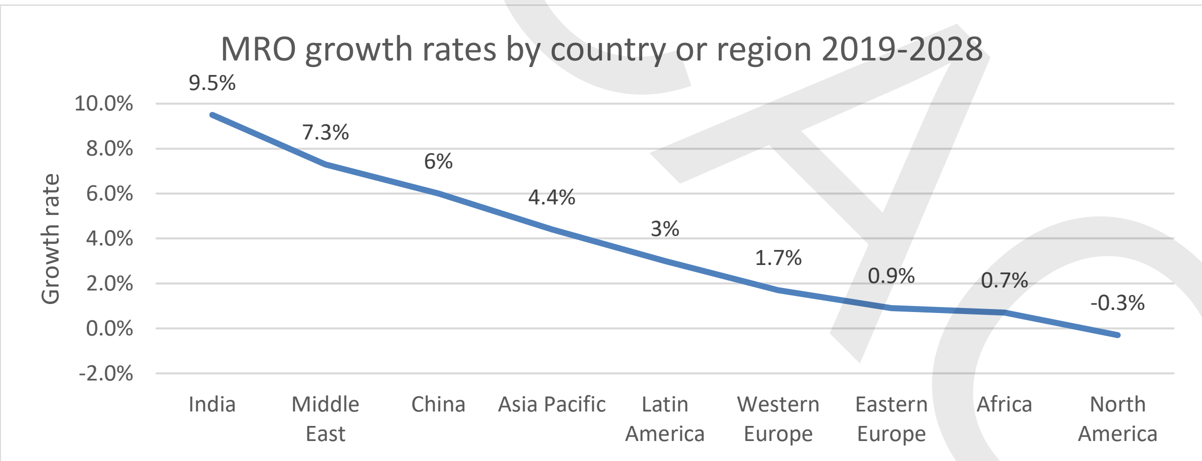


Figure 46 MRO growth rates by country or region 2019-2028; Source: Aviation Week, 2019

In 2024, North America was the leading market for aircraft maintenance, repair and overhaul (MRO), with a market size of USD 24.1 billion. This market was estimated to reach around USD 30 billion by 2034. Over the given period, the Indian aircraft MRO market was projected to grow by 12.3 percent, which was the highest growth rate expected compared to the others (Oliver Wyman, 2024). See Figure 47.

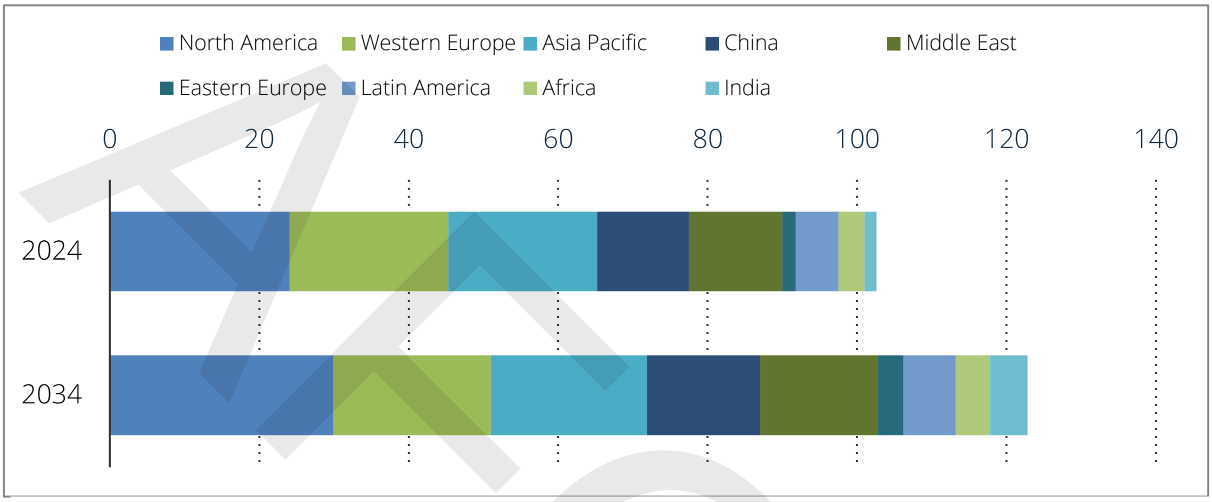


Figure 47 Projected aircraft MRO market size worldwide in 2024 and 2034, by region or country (in billion U.S. dollars); Source Oliver Wyman (2024)

Environmental Charges in Civil Aviation

An environmental charge is a separate and specific charge or fee, linked to a certain impact with the revenues from the charge ring-fenced by the airport or directly collected by the government. The most common charge is a noise charge or tax, applied per passenger or aircraft movement, the revenues of which are directed to fund noise mitigation measures.

Many airports modulate charges (increase/decrease) paid by airlines based on environmental criteria of the airlines' operation, for example, noise from the aircraft and emissions with an impact on local air quality. Airports' ability to modulate charges depends on the applicable legislation, which varies from country to country.

Civil aviation, encompassing both airlines and airports, contributes to environmental impacts that bear associated social costs. Notably, the aviation industry's adverse environmental effects are relatively constrained compared to other transportation sectors, with the industry demonstrating a heightened awareness and responsiveness to its ecological footprint. Noise pollution stands out as the most significant social cost attributed to aviation activities. Besides, the emission of gases by aircraft, particularly in the upper atmosphere, adds to the industry's air pollution concerns. Efforts are ongoing, with aircraft manufacturers committed to innovating and implementing technologies aimed at minimising noise pollution, resulting in modern aircraft being significantly quieter than their predecessors.

In accordance with the ICAO Balanced Approach to Aircraft Noise Management, airport noise should be addressed in the most cost-effective manner and noise related charges only introduced as part of a broader noise management programme.

ICAO has been proactive in addressing the noise pollution issue by advocating for the gradual cessation of operations involving noisier aircraft types. Additionally, ICAO supports the imposition of special charges dedicated to mitigating noise pollution effects and has enacted a ban on in-flight smoking to further its environmental stewardship goals.

In Europe, several airports have introduced extra fees for noisier aircraft to discourage their use. Many airports have also restricted night-time take-offs and landings to reduce noise disruptions for nearby communities. Infrastructure redesign, such as new runway development aimed at diverting flight paths away from residential areas, also reflects the industry's commitment to minimizing its environmental impact (see Figure 48 below). Interestingly, within the SAATM PIP states, there is no evidence of any airports charging emission[18] or noise charges (Appendix 2) and this is supported by the stakeholder consultations conducted during the purpose of this study. It would be premature to say that African airports will introduce such charges anytime soon.

Despite various efforts to reduce environmental impacts, the ongoing rise in air traffic has somewhat offset these initiatives. The growing aviation activity underscores the need for a forward-looking approach to airport pricing, which involves internalising and separately addressing the social costs of environmental impacts. This strategy ensures that the broader societal effects of aviation are integrated into the industry's financial and operational plans.

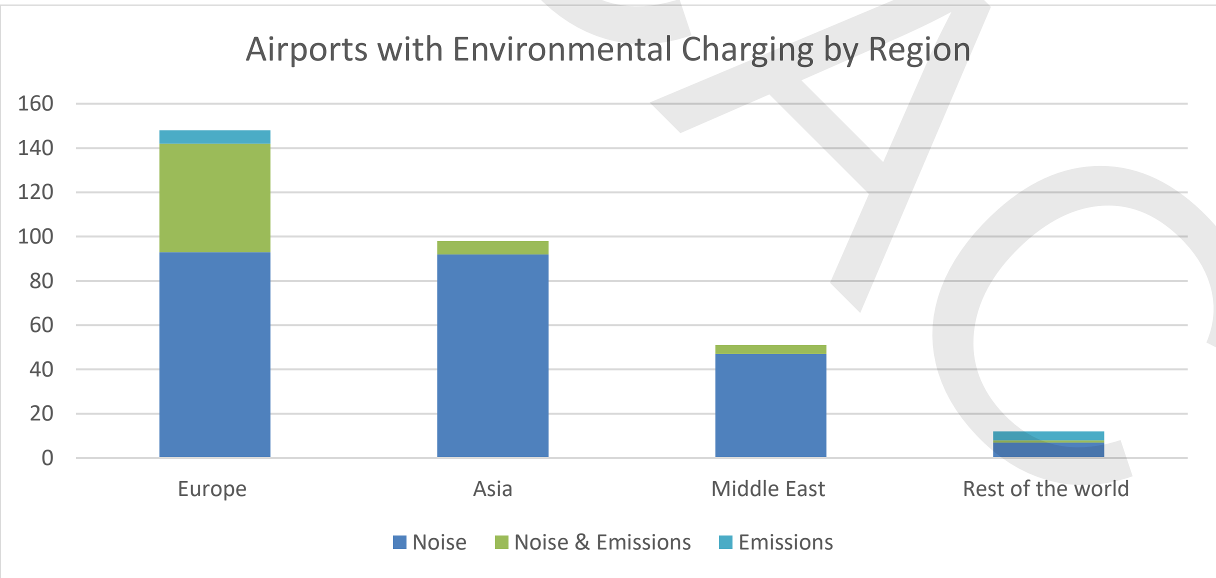


Figure 48 Airports with environmental charging by region; Source: RDC (2023)

In recent years, rising pollution levels have brought environmental protection and sustainable development to the forefront of global discussions. Governments are developing strategies to reduce

[18] There are no records of emission taxes in ACIC

environmental harm and mitigate the negative impacts of natural resource use and energy consumption. To achieve these goals, a variety of economic tools are being used, such as innovation policies, regulations, subsidies, public awareness campaigns, and environmental taxes. Environmental taxes, often called green taxes, climate taxes, ecological taxes, or eco- taxes, have proven especially effective in addressing climate change and promoting conservation efforts.

Environmental taxation is increasingly recognised as an effective way to encourage eco-friendly consumption and production behaviours. The growing emphasis on environmental challenges, such as irresponsible resource use, health issues linked to energy use, and climate change effects like ozone depletion and global warming, has driven the adoption of green taxes in various regions. These taxes are seen as a means to deter environmentally harmful practices and foster more sustainable behaviour.

Studies (e.g. Chen, Jiandong & Saleem, 2022; Dahmani, 2024) have shown that environmental taxes can effectively improve environmental quality, though their overall economic impact is still uncertain and needs more research. The success of these taxes depends on factors like how they are designed and implemented, the economic situation, the socio-political environment, and the availability of alternatives. Environmental taxes can increase prices, which sometimes leads to reduced economic efficiency and consumer welfare, known as the "deadweight loss" or "excess burden."

There remains a lack of consensus among experts regarding the precise definition of green taxes, which reflects the novelty and complexity of this concept. Generally, green taxes are environmental levies aimed at mitigating the negative impacts of certain ecologically detrimental activities and products. These taxes are designed to discourage practices harmful to the environment and encourage more sustainable actions and decisions among individuals and corporations. By integrating the cost of negative externalities into product prices, green taxes guide more environmentally friendly production and consumption choices, as stated by the main principles for the implementation of environmental taxes (Table 14). Common forms of green taxes include transport, pollution, carbon, energy, and natural resource taxes.

Principle	Explanation
Polluter Pays Principle	This principle emphasises that those responsible for pollution should bear the costs of the environmental impacts they cause. It supports the incorporation of these costs into the price of goods or services, ensuring that the environmental damages are not only a burden on society and governments but also on the polluters themselves through taxes.
Prevention Principle	This principle focuses on proactive environmental protection. It encourages resource users, both companies and individuals, to engage in activities without causing environmental harm, advocating for the use of green taxes as a preventive measure to uphold environmental integrity and sustainability.

Principle	Explanation
Precautionary Principle	Based on the notion of risk management, this principle deals with protecting the environment from potential but not yet quantified or known risks. It supports the use of environmental taxes to avert these risks before they manifest, promoting a cautious approach to environmental management.
Principle of Common but Differentiated Responsibilities	Recognising the shared yet varied capabilities among countries, this principle calls for collective environmental protection with differentiated levels of obligations. Green taxes are tailored to reflect these varied responsibilities, accommodating differences in tax structures and administrative capacities.

Table 14 Principles relating to the implementation of environmental taxes; Source: Mpofu, 2022

Moreover, green taxes are categorised into two main types: environmental taxes and environmentally related taxes. While these categories often overlap in practice, leading to some ambiguity, the African Tax Administration Forum (ATAF) (2021) recognises the distinction between them, helping clarify their definitions and applications in policy contexts (Figure 49).

Environmentally Related Taxes

- These refer to any mandatory, unrequited payment to general government charged on tax bases assumed to be environmentally relevant.

Environmental Taxes

- "These are defined as taxes whose base is a physical unit (or a proxy of it) that have a proven specific negative impact on the environment" OR Taxes imposed for environmental reasons.

Carbon Taxes

- Carbon tax is defined as a tax that is able to confer a reduction in carbon-driven emissions in the atmosphere. It is argued to both an environmental focus and impact.

Examples

- transport taxes, energy taxes, resources taxes and pollution taxes

Figure 49 Environmental taxes; Source: Mpofu, 2022

For green taxes to be truly effective, they often need to be implemented alongside other policy instruments. It is critical to achieve a balanced approach when integrating environmental taxes with other policies to prevent undue burdens on consumers and businesses from causing distortions in innovation and abatement strategies. Careful assessment of tax rates and the structure of environmental taxes is vital to ensure that they do not inadvertently prompt businesses to relocate from high-tax jurisdictions to those with lower or no environmental taxes. This balance is crucial to maintaining economic competitiveness while effectively addressing the environmental challenges posed by climate change.

In the aviation industry, environmental taxes take various forms, such as carbon taxes on airline emissions and charges for noise pollution. These taxes are crucial for mitigating the environmental impacts associated with high levels of fossil fuel consumption and noise generated by aircraft operations. By imposing financial costs on pollution, these taxes incentivise airlines to adopt more fuel-efficient technologies and alternative fuels, which can lead to significant reductions in carbon footprints.

While the potential benefits of environmental taxes in the aviation industry are substantial, their effectiveness can be hindered by several challenges. Key among these is the risk of market distortion, where taxes might overly penalise certain stakeholders or lead to unintended economic consequences. Moreover, the variability in tax implementation across different jurisdictions can lead to inconsistencies in policy effectiveness and competitive disadvantages (Mpofu, 2022).

Furthermore, green taxes in consideration are additional to existing carbon pricing measures like the EU ETS and CORSIA, potentially leading to redundant charges for the same emissions. This overlap necessitates careful regulation to avoid double-charging, aligning with ICAO's guidelines that discourage duplicative taxation and encourage focusing levies on environmental cost recovery rather than revenue generation.

Taxes can hinder airlines' capacity to invest in modern, environmentally friendly technologies, potentially delaying significant environmental improvements. They can also cause passengers to choose longer, more emission-intensive routes via airports without such taxes, reducing airlines' competitiveness and negatively affecting local economies due to decreased tourist and business travel. Ultimately, while aiming to increase tax revenue, governments might face a net loss from reduced air travel and lower ancillary revenue from tourism and related sectors (IATA, 2023) (Table 15).

Stakeholder	Impact of Environmental Tax
Passengers	May avoid travel due to increased costs. Could opt for alternative forms of travel (train, automobile) or travel to regions without such taxes. Potential displacement of environmental problems to other locations.
Airlines	Experience a drop in passenger revenue. Struggle to pass tax costs onto passengers. Limited ability to invest in newer, cleaner, and quieter technologies.
Tourism Sector	Suffers from reduced air passenger volumes leading to decreased demand for services and goods. Negative impact on GDP and overall economic activity in the sector.
Governments/ Revenue Authorities	May not see net benefits from the tax due to the high price elasticity of air travel. Increase in tax revenue may not compensate for the reduction in other travel-related revenues and economic activities.

Table 15 Impact of Environmental Tax; Source: IATA, 2023a

The concerns highlighted in Table 16 underline the discrepancies between the intended environmental benefits of such taxes and their actual implementation and impact. It examines various issues, including the general use of tax revenues, compatibility with international standards, alignment with policy objectives, and potential discriminatory effects on aviation. Each point is elaborated to illustrate how environmental taxes, while aimed at reducing aviation's ecological footprint, may contradict established international guidelines and potentially lead to inefficiencies and economic disparities within the global aviation industry.

Point	Issue Highlighted	Detailed Concern
1. General Revenue Allocation	Environmental taxes become part of general government funds.	There's no direct link between tax revenue and funding specific environmental initiatives, making the effectiveness of these taxes for environmental improvements unclear.
2. Incompatibility with ICAO Standards	Additional carbon pricing measures conflict with CORSIA guidelines.	Any carbon pricing applied to international flights outside of CORSIA is incompatible with international agreements, potentially leading to policy duplication and inefficiency.
3. Contradiction to ICAO Tax Policies	ICAO Document 8632 calls for the elimination of taxes on international air transport.	Imposing environmental taxes directly on passengers or shippers contradicts ICAO's directive to reduce and eliminate such taxes, potentially stifling industry growth.
4. Misalignment with Environmental Charge Objectives	ICAO states environmental levies should not have fiscal aims and should relate to environmental costs.	Environmental taxes often serve fiscal purposes and may not be directly linked to mitigating environmental impacts, which could lead to discriminatory practices against aviation.
5. Discriminatory Impact on Aviation	Passenger taxes on air travel without equivalent charges in other transport modes.	This approach discriminates against air transport, unfairly targeting the aviation industry and potentially harming the global economy.

Table 16 Arguments against the implementation of environmental taxes; Source: IATA, 2023a

The environmental impact of aviation is a significant concern. The sector is a major contributor to climate change, with rapid growth in emissions attributed to increasing air travel. Air transport, despite its benefits, has substantial environmental repercussions, including emissions leading to air pollution, ozone layer depletion, and global warming. Additionally, noise pollution, particularly during take-off and landing, adversely affects human health. Currently, global emissions from international aviation constitute about 1% of total anthropogenic CO_2 emissions (Van Schalkwyk, 2012). However, curtailing aviation and tourism growth to reduce carbon emissions could adversely affect job creation and poverty reduction efforts. In response to environmental concerns, South Africa implemented a national carbon tax in 2012 to mitigate greenhouse gas emissions, with voluntary targets set to reduce emissions by 34% by 2020 and 42% by 2025 (South African Revenue Service, 2012). The rationale behind this tax is to incorporate the costs of emissions into production and consumer prices, thereby incentivising the adoption of energy-efficient technologies. This policy decision, however, has faced criticism from industry leaders like the IATA Director General, who argue that the carbon tax could strip the aviation industry of necessary funds for investing in emission reduction technologies.

Aviation, compared to other transport modes, performs well in terms of external cost coverage, which includes pollution, global warming, noise, accident costs, and infrastructure balances. External costs are those not typically accounted for in market transactions or corporate decision-making but borne by society. Air transport, despite higher costs associated with climate change, often offsets its environmental costs through infrastructure surpluses, suggesting a favourable net social cost balance compared to rail and road transport.

Ultimately, while aviation is advancing in energy efficiency and contributing less per unit to global emissions than might be expected given its economic impact, the sector, particularly in developing regions like Africa, must continue to balance growth with environmental sustainability by following the 5 Pillars provided by AFRAA (Forecasting, 2003) (Table 17).

Pillar 1: Continuous Fuel Efficiency Improvement	Focus on integrating new technology aircraft that meet strict environmental standards, resulting in lower fuel consumption and reduced environmental impact.
Pillar 2: Alternative Fuel	Promotion of biofuels, highlighted by South African Airways' use of bio-fuel blends, to reduce reliance on traditional jet fuels.
Pillar 3: Fuel Conservation Initiatives	Encouragement of operational and maintenance practices that reduce fuel usage, thereby decreasing CO2 emissions and operational costs.
Pillar 4: Air Navigation Infrastructure	Implementation of Performance-Based Navigation (PBN) to optimise flight paths and improve fuel efficiency through Continuous Climb and Descent Operations in terminal areas.
Pillar 5: CORSIA	Active engagement in CORSIA to align African states with global efforts to prevent multiple carbon offsetting schemes and to ensure a coordinated approach to international aviation emissions.

Table 17 AFRAA strategies; Source: AFRAA, 2021

While the introduction of environmental taxes in the aviation sector is a necessary step towards achieving sustainability, it must be approached with caution. Properly balancing these taxes with other policy measures is crucial to avoid unintended economic consequences and ensure that they effectively contribute to environmental goals without inhibiting growth. A well-thought- out implementation can help promote a more sustainable aviation industry, which remains competitive and continues to provide essential economic and social benefits.

METHODOLOGY

The purpose of this chapter is to outline the methodological framework adopted to investigate the landscape of aviation charges, taxes, and fees across the African continent. This study aims to support the African Civil Aviation Commission (AFCAC) in its efforts to assess and harmonise taxation regimes, which is vital to operationalising the Single African Air Transport Market (SAATM). A comprehensive methodology is critical to providing a clear understanding of the different elements that influence taxation, charges, and fees in aviation and delivering actionable insights for policy harmonisation. The methodological approach was structured to provide both qualitative and quantitative insights through systematic stakeholder consultations, econometric modelling and synthesis of findings.

The research methodology was designed to address the diverse and complex nature of aviation taxation regimes among African Union (AU) Member States. The study's overarching aim is to equip AFCAC with a robust blueprint for supporting AU states, emphasising the need for tax harmonisation as a critical structural adjustment to foster a viable and competitive air transport market across Africa. The methodology, therefore, aims to identify gaps, analyse differences in existing tax and charge frameworks, and propose a unified approach that can enhance competitiveness and connectivity in the African aviation industry.

To achieve these objectives, the study adopted a multi-pronged methodological approach, beginning with the selection of a representative sample of AU Member States, particularly focusing on the 20 states under the Single African Air Transport Market Pilot Implementation Project (SAATM-PIP). This sample was chosen to ensure that the study's findings would be broadly representative of the continent's diverse aviation landscape while still focusing on areas that have committed to furthering the goals of SAATM.

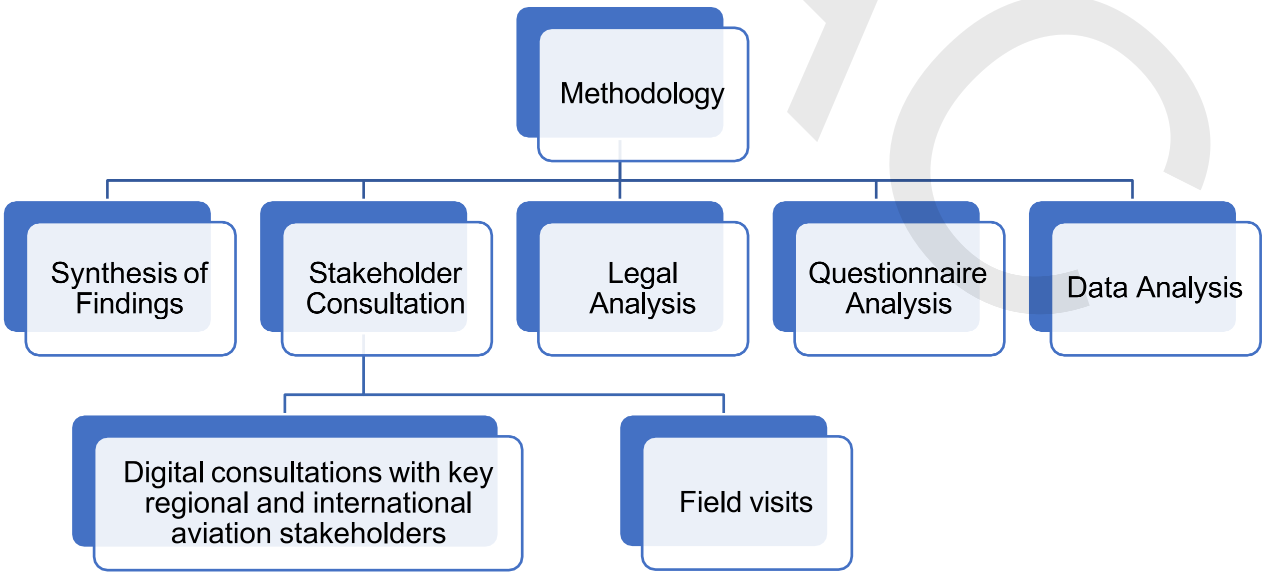


Figure 50 Methodology Framework

As part of the methodology in Figure 50, the stakeholder consultation played a pivotal role in gathering first-hand insights into the practical implications of aviation charges and taxes. A series of targeted qualitative interviews were conducted with key stakeholders, including regional and international organisations, Civil Aviation Authorities (CAAs), government ministries, airport operators, airline carriers, jet fuel providers, and other relevant actors in the aviation ecosystem. These interviews were conducted in-person during mission visits. Stakeholder input was instrumental in contextualising quantitative data and provided nuanced insights into the challenges and operational dynamics faced by different industry actors, thereby enriching the analysis with practical perspectives.

The synthesis of findings from the literature review, stakeholder consultations, legal analysis, questionnaire analysis, and additional data sources culminated in the development of a factual and balanced assessment of the aviation taxation landscape in Africa which will inform future policy considerations on harmonisation. This model aims to benchmark the different tax regimes across African countries and highlight areas where harmonisation is needed. Due to the lack of uniformity in taxation across the continent, this model provides an empirical basis for assessing the competitiveness of different aviation markets and identifying best practices.

Data Modelling Technique using Machine Learning

The following sections of this chapter delineate a structured approach to comprehensively address the study's objectives. Each subsequent section offers a detailed examination of specific methodological components—stakeholder consultation analysis, questionnaire analysis, legal analysis and econometric modelling—ensuring a cohesive and thorough investigation of aviation taxes, charges, and fees across Africa's aviation market.

Stakeholder Consultation Analysis

Stakeholder consultations are a critical component of the methodology employed in this study, aimed at supporting the African Civil Aviation Commission (AFCAC) in the harmonisation of aviation taxes, charges, and fees across Africa. These consultations consisted of two elements: digital consultations with key regional and international aviation stakeholders, including the African Development Bank (AfDB), World Bank, Airports Council International (ACI), and the African Airlines Association (AFRAA), as well as in-person engagements conducted during field visits across 7 African countries. Both elements played a crucial role in providing a comprehensive understanding of the challenges and opportunities within the African aviation sector, contributing to the development of informed policy recommendations to advance the goals of the Single African Air Transport Market (SAATM).

The stakeholder consultations conducted digitally with key regional and international aviation stakeholders were an essential part of the overall study. The consultations involved representatives from the African Development Bank (AfDB), World Bank, Airports Council International (ACI), and the African Airlines Association (AFRAA).

The objective of these consultations was to gather expert insights on the current state of aviation taxation, charges, fees, and the challenges faced in streamlining these systems to support the implementation of the Single African Air Transport Market (SAATM). Discussions focused on identifying gaps, understanding regulatory challenges, and exploring potential solutions for a harmonised aviation taxation framework across Africa. Each organisation provided unique insights based on their expertise, contributing to a comprehensive understanding of the dynamics at play in African aviation economics.

African Development Bank (AfDB)

The insights provided by the African Development Bank (AfDB) during the stakeholder consultation highlighted several key areas that are critical for understanding and addressing the challenges associated with aviation taxes and charges in Africa. The discussion points emphasised the complexity of the current landscape, the importance of learning from past studies, the role of economic modelling, and the need for a collaborative, incentive-based strategy to foster a more efficient and competitive aviation sector.

1. Complex Landscape of Aviation Taxes and Charges

The AfDB emphasised the diverse and complex nature of aviation taxes and charges across African jurisdictions. Factors such as differing legal arrangements, private sector involvement in airport operations, and concessions contribute to a fragmented system that significantly impacts the economics of the aviation sector. This complexity underscores the need for a comprehensive approach to harmonise and streamline these charges, with a focus on creating a predictable environment that would support regional integration and market competitiveness.

2. Strategy for a Win-Win Scenario

A major point of discussion was the potential for a win-win strategy wherein airlines could be incentivised to reduce airfares in response to lower operational costs, such as reductions in oil prices or aviation charges. The AfDB suggested that aligning airline operations with market regulations through targeted incentives could enhance both competitiveness and consumer affordability. Bringing airlines and key stakeholders, such as the African Airlines Association (AFRAA), into the conversation was identified as a critical element for achieving these goals. This collaborative approach aims to align the interests of airlines, passengers, and regulatory bodies in a way that benefits the entire aviation ecosystem.

3. Need for Economic Modelling and Impact Analysis

The AfDB underscored the importance of economic modelling. By quantifying the effects of various tax reductions, stakeholders can make informed decisions about the potential benefits of harmonising aviation taxes and fees. Economic modelling provides a data-driven foundation for assessing how tax changes could lead to increased air traffic, improved operational efficiency, and greater market competitiveness.

4. Economic Oversight and Airline Contribution

The importance of increased economic oversight in the aviation sector was also discussed. Ensuring that airlines contribute fairly to the air transport ecosystem is vital for supporting both operational efficiency and market competitiveness. The AfDB suggested that economic oversight mechanisms should be strengthened to guarantee that airlines fulfil their responsibilities while benefiting from a fair and balanced regulatory environment.

African Airlines Association (AFRAA)

The insights provided by the African Airlines Association (AFRAA) during the stakeholder consultation were instrumental in identifying key challenges and opportunities within the African aviation industry. The discussions highlighted the importance of industry collaboration, the need for actionable strategies to address high taxation levels, and the various operational and regulatory challenges that impact the competitiveness of African airlines. The following analysis captures the key points discussed during the consultation.

1. Industry Collaboration and Strategy Workshops

AFRAA emphasised the need for collaboration within the African aviation sector to address the high taxation levels that adversely impact competitiveness. The African Aviation Industry Group's strategy workshop held from 17-18 October 2024 in Nairobi was highlighted as a significant initiative aimed at developing actionable strategies to improve airline performance across Africa. Such collaborative efforts are critical for uniting stakeholders to create solutions that can reduce operational costs and enhance overall industry effectiveness.

2. Challenges of Competition and Operational Charges

The discussion underscored the non-competitive nature of many aviation charges and the absence of user consultation in determining these charges. This lack of competitiveness creates significant hurdles for airlines in reducing operational costs and achieving profitability. The consultation called for a detailed examination of these charges and a strategic action plan to enhance industry competitiveness through fair and transparent fee structures.

3. Risks of Hedging and Market Predictability

Literature (e.g. Samunderu, Perett & Geller, 2023) often questions fuel hedging's economic sense for airlines, or if hedging instruments (derivatives) even positively affect their financial performance at all. There is only one thing that is clear: fuel costs represent a significant portion of an airline's overall expenses, and sharp and disruptive swings in prices will have a dramatic effect on it is financial health.

Hedging can also reduce the costs of financial distress and help conserve capital when credit costs are high. There is an informational dimension to hedging as well, whereby hedging can reduce contracting costs by informing the market of the risk management being undertaken. Thus, the argument for developing a fuel hedging program means that the company requires clarity on its strategic objectives since the risk management strategy will encapsulate management´s understanding of the risks facing the company.

Risk tends to be measured in relation to price changes which can take various forms such as relative, absolute, or log price changes. There are generally three specific measures used to measure the risk of individual assets, namely *standard deviation, beta,* and *duration*. The volatility of asset prices is determined by a standard deviation approach, beta tackles market risk and portfolio risk measures whilst duration measures the sensitivity of debt security prices to changes in interest rates.

However, AFRAA highlighted the risks associated with fuel hedging, particularly given the volatility and unpredictability of market conditions for African airlines. The uncertainty of market trends makes it difficult for airlines to adopt hedging strategies confidently, which in turn affects their financial stability.

4. Operational and Regulatory Challenges

The consultation also addressed several operational and regulatory challenges that hinder the growth of African airlines. These include the protective measures in place for national carriers, disparities in customs regulations, and the inconsistent implementation of Maintenance, Repair, and Overhaul (MRO) requirements. These challenges significantly affect the operational efficiency of airlines and contribute to the high costs associated with compliance. AFRAA stressed the importance of making actionable recommendations to mitigate these challenges and improve the regulatory environment.

World Bank

The insights provided by the World Bank (WB) during the stakeholder consultation were instrumental in clarifying the study's focus, understanding the complexities of tax harmonisation, and emphasising the importance of leveraging best practices from other Regions such as the EU. The discussion highlighted critical areas such as examining international models, addressing legal frameworks, and promoting policy harmonisation. Below is a detailed analysis of the key points discussed during the consultation.

1. Leveraging Best Practices from Other Regions

The World Bank underscored the value of examining successful models from other regions, such as Costa Rica, to identify innovative strategies for tax harmonisation. The complexity of achieving harmonisation in Africa was acknowledged, but leveraging international best practices was seen as a key strategy for overcoming these challenges. By examining what has worked in other contexts, stakeholders can identify adaptable solutions that fit the African aviation landscape and apply them to foster better outcomes.

2. Legal and Bilateral Agreements

The legal aspects of tax harmonisation were another major point of discussion. The World Bank highlighted the importance of understanding the legal framework, particularly regarding bilateral agreements, as a critical factor for the success of harmonisation efforts. Harmonising aviation taxes across different jurisdictions is a complex endeavour, and ensuring that legal agreements align with the broader objectives of the study is essential for effective implementation. This focus on bilateral agreements can help pave the way for a more integrated aviation market in Africa.

3. Harmonisation and Policy Implications

The challenges associated with harmonising aviation taxes and charges were acknowledged, but the discussion also emphasised the need to demonstrate the benefits of harmonisation to decision-makers. The World Bank highlighted the potential advantages of open skies policies and market expansion as outcomes of successful harmonisation. By showcasing the economic and operational benefits, stakeholders can be more motivated to adopt policies that support harmonisation, leading to improved connectivity, reduced costs, and a more competitive aviation sector across Africa.

Airports Council International (ACI)

The insights provided by Airports Council International (ACI) during the stakeholder consultation were invaluable in addressing the distinctions between airport charges and taxes, understanding the implications of different taxation practices, and emphasising the importance of adherence to international standards such as those outlined by the International Civil Aviation Organisation (ICAO). Below is an analysis of the key points discussed during the consultation.

1. Distinguishing Taxes from Airport Charges

ACI emphasised the importance of clearly distinguishing between "taxes" and "airport charges" in accordance with ICAO Policies on Taxation in the Field of International Air Transport (Doc 8632). This distinction is crucial for ensuring that airport charges are not misused or applied in a manner that discriminates against aviation. ACI fully supports the ICAO principle of distinguishing charges from taxes, which helps to maintain fairness in how different costs are attributed within the aviation sector.

2. Economic Modelling and Collaboration

The discussions included an agreement on incorporating an econometric model to evaluate the impact of airport charges and taxes on air traffic demand. ACI emphasised that while airport charges represent a smaller portion of airfares compared to taxes (e.g., airport charges at 5.9% versus taxes at 37% on the LOS-NBO route), it is essential to understand how both elements influence market dynamics. ACI also acknowledged governments' right to impose taxes for general purposes but expressed concerns over discriminatory taxes that specifically target aviation or are used for non-aviation purposes.

The stakeholder consultations provided critical insights into the challenges and opportunities involved in harmonising aviation taxes, charges and fees across Africa. Each stakeholder brought a unique perspective, highlighting the complexities of the aviation taxation landscape, the need for data-driven analysis, and the importance of collaboration across the industry. These discussions will be instrumental in shaping policy recommendations aimed at achieving a more competitive, transparent, and sustainable aviation sector across the African continent. The findings from these consultations will directly inform the broader study's efforts to harmonise the regulatory framework and improve the overall efficiency of the aviation market under the SAATM initiative.

Field Visits

Between July 16 and August 2, 2024, a series of missions were undertaken across five key African countries—Kenya, Zimbabwe, Zambia, South Africa, and Namibia and a second mission between February 3 and February 7, 2025, in Sierra Leone and Seychelles. The purpose of these missions was to engage with key stakeholders in the aviation sector, including airline operators, cargo operators, civil aviation authorities (CAA), ground handling services, airport operators, government ministries of transport, Revenue Authorities, travel agencies, and fuel suppliers. These engagements were conducted as part of the study focusing on the regulatory frameworks governing aviation charges, taxes, and fees (*Study to Support the African Civil Aviation Commission (AFCAC) on Aviation Taxes, Charges and Fees*). The objective was to collect in-depth, on-ground data and insights that would inform policy recommendations aimed at enhancing the efficiency, transparency, and competitiveness of Africa's aviation industry. The information/data collected would have analytical richness towards the overall raw data analysis, which forms a major part of the research.

The stakeholders consulted were selected based on their integral roles in the aviation ecosystem and their direct involvement with the financial, policy, and operational challenges imposed by the current aviation tax structures. Each stakeholder group provided unique perspectives on the financial burden created by fragmented tax regimes, high fuel costs, and the increasing demand for compliance with international aviation standards. Central to the discussions were the multifaceted impacts of aviation taxes and fees on operational efficiency, cost structures, and market competitiveness, particularly in a region where harmonisation of regulations remains a critical challenge.

The methodology employed during these missions was twofold. First, targeted open questions—designed to align with the primary questionnaire of the study—were used to ensure that specific and relevant data and information were precisely collected from each stakeholder. These questions focused on quantifying the impact of various aviation charges, including fuel taxes, passenger levies, and airport service fees. Additionally, the questions sought to identify potential pathways for streamlining these costs, especially within the context of the SAATM. Second, open discussions provided a platform for stakeholders to share their experiences and challenges in a less structured format, allowing for the emergence of qualitative insights that could further enrich the quantitative data collected.

These missions were crucial for the study as they provided direct, empirical insights into the complexities of aviation taxation, charges, and fee structures in different African contexts. By engaging stakeholders through a combination of targeted inquiries and open discussions, the missions succeeded in gathering critical data that will inform the development of actionable policy recommendations. The findings from these missions are expected to contribute significantly to the broader objective of harmonising aviation taxes and charges across Africa, thereby fostering a more competitive and sustainable aviation sector.

The findings reveal the structure of TCFs across African countries. The collected information offers critical insights into how these cost structures affect airline profitability, ground handling efficiency, and compliance with international aviation standards, particularly under the framework of the Single African Air Transport Market (SAATM).

These insights will contribute directly to shaping actionable policy recommendations aimed at harmonising aviation taxes and charges across Africa. Specifically, the findings will support the development of a more transparent, competitive, and regionally integrated aviation market. Recommendations such as fuel tax mitigation, fee structure transparency, and regulatory harmonisation are central to enhancing affordability and operational sustainability. By addressing these core issues, the missions pave the way for structural reforms that align with continental ambitions for a unified and efficient aviation sector.

Republic of Kenya.

The Republic of Kenya is part of the 20 states under the SAATM-PIP. This stakeholder consultation is integral to understanding the regulatory landscape and its impact on the country's aviation industry. The primary objective of the mission was to collect detailed data and information on aviation taxation, assess its impact on operational efficiency and competitiveness, and engage key stakeholders to gather insights for developing policy recommendations.

During the consultation, the following insights were collected:

1. **Aviation Charges and Tax Structures**: Stakeholders highlighted the significant impact of aviation-related taxes and fees on operational costs. For instance, airline operators reported that aviation charges accounted for up to 2.5% of their total operational expenses. This burden directly affected ticket pricing and overall market competitiveness. Airport operators elaborated on the structure of passenger taxes, including a USD 50 departure tax for international flights and USD 4 for domestic flights. While these taxes are competitive within East Africa, stakeholders expressed concerns over the complexity of the existing tax framework and called for streamlined processes to improve efficiency and transparency.

2. **Fuel Costs and Taxation**: Fuel costs emerged as a critical issue across all stakeholder groups, with fuel constituting 45-55% of operational expenses for some airlines. High fuel prices in Kenya, exacerbated by a 16% VAT on domestic fuel, were seen as a major constraint on operational efficiency. Stakeholders discussed the absence of fuel hedging mechanisms, which exacerbates volatility in operational costs. Cargo operators and ground handling services also pointed to the elevated costs of fuel as a factor that decreases competitiveness in regional markets.

3. **Regulatory Compliance and Import Duties**: Ground handling companies raised concerns about the high costs associated with compliance and import duties, particularly on essential equipment.

They noted that general duty excise and import duties significantly increased their operating costs. The requirement for continuous compliance with international standards, including mandatory certification and training, further strained operational budgets. Airlines echoed these concerns, citing high taxes on aircraft maintenance and spare parts as a financial burden.

4. **Fragmentation of Regional Tax Systems**: Another recurring theme was the fragmentation of tax structures across different regions in Africa. Stakeholders acknowledged the challenges posed by inconsistent tax regimes, particularly for operators that work across multiple African countries. The lack of harmonisation in tax structures was seen as a barrier to the creation of a unified aviation market under the SAATM initiative.

Zimbabwe.

The stakeholder engagement in Zimbabwe included consultations with representatives from civil aviation authorities, government ministries, airport operators, airlines, ground handlers, and other key players within the aviation sector. These consultations provided first-hand insights into the complexities of the existing aviation taxation system and its implications for both operators and consumers. The findings are intended to inform the broader goal of creating an efficient, transparent, and harmonised tax and fee structure that will support the growth and sustainability of the aviation sector in Zimbabwe and the wider African continent.

1. **Aviation Charges and Tax Structures**: Stakeholders highlighted the heavy burden imposed by Zimbabwe's aviation taxes on both domestic and international traffic. Airlines reported that passengers are subject to significant fees, such as a USD 50 charge for outbound flights and USD 37 for inbound flights, with charter flights attracting even higher fees. Ground handling service providers noted that they are required to pay a 10% concession fee to the Civil Aviation Authority of Zimbabwe (CAAZ), along with substantial rental fees for airport space, which can account for over 12% of their revenue. These charges, combined with high operating costs, contribute to the overall high cost of air travel in Zimbabwe and hinder the competitiveness of the aviation sector.

2. **Fuel Costs**: The high cost of fuel emerged as a critical issue across all stakeholder groups, impacting both passenger and cargo operations. Despite benefiting from VAT exemptions on fuel, airlines such as Air Zimbabwe still face significant fuel costs that severely affect their operational efficiency. Ground handlers also reported that high fuel prices, when compared to other regions, increase their operational expenses, making it difficult for them to maintain competitive pricing. The absence of fuel hedging practices and the lack of competitive fuel pricing structures further exacerbated the issue.

3. **Compliance and Training Costs**: Ground handling companies expressed concerns about the high costs associated with regulatory compliance, particularly the mandatory training and certification required to meet international standards. These costs, which include the purchase of IATA manuals and frequent re-certification, place additional strain on their financial resources, thereby affecting their

profitability. Similar concerns were raised by airlines and airport operators regarding the high costs of complying with international safety and operational standards.

4. **Challenges in Regional Tax Structures**: A key challenge raised by stakeholders was the fragmentation of tax regimes across different African countries. Airlines, in particular, emphasised the difficulties they face in navigating the various aviation taxes and fees that differ from one country to another. Ground handling providers also noted that while some charges in Zimbabwe are competitive, the overall cost structure—driven by high fuel prices and compliance costs—places them at a disadvantage compared to their regional counterparts.

Republic of Zambia.

The mission was aimed at understanding Zambia's aviation taxation framework and its implications on the operational efficiency and competitiveness of the country's aviation sector. Zambia, a landlocked country in Southern Africa, relies heavily on efficient air transport for both passenger and cargo movement, which is crucial for supporting economic development, tourism, and regional integration.

The current state of Zambia's aviation sector is marked by a mix of opportunities and challenges. While the country is experiencing steady economic growth and has been investing in expanding airport infrastructure, it faces high operational costs driven largely by aviation fuel, taxes, and regulatory compliance expenses.

Thus, the Zambian aviation sector faces many technical, financial, and institutional capacity challenges. Nevertheless, air traffic in Zambia has grown strongly over the past 10 years, albeit from a low base. Based on current traffic and GDP projections, the Zambian aviation sector is set to expand significantly over the next decade. This growth would add extra demand on Zambia to implement the necessary safety and security oversight obligations, in line with requirements of the ICAO.

1. **Aviation Charges and Tax Structures**: The Civil Aviation Authority (CAA) provided an overview of how aviation charges, including air navigation and airport charges, are levied and distributed. The CAA highlighted the importance of ensuring that these charges, such as the USD 10 air service fee, are systematically allocated to maintain infrastructure and ensure regulatory compliance. The Ministry of Transport emphasised the need for fair and transparent aviation taxes, with an ongoing effort to harmonise these charges across African countries under the SAATM) initiative.

2. **Fuel Costs**: Fuel costs were identified as a significant challenge in Zambia, with fuel taxes comprising about 45% of total operational expenses for airlines. The fuel suppliers outlined the financial impact of various taxes, including an 8.8% excise duty on fuel imports and a 16% VAT, which contribute to the high cost of aviation fuel. These high taxes have created a competitive disadvantage, prompting airlines to refuel in neighbouring countries where fuel prices are lower. Airline operators discussed how fuel taxes affect route planning and profitability but noted that passenger demand and connectivity are more critical factors in their strategic decisions.

3. **Compliance with International Standards**: The CAA explained its role in ensuring compliance with both local and international aviation standards, particularly those set by the ICAO. The discussions centred on the costs of regulatory compliance, including maintaining a sustainable fee structure that aligns with global standards while supporting industry growth. The authority also underscored the importance of periodic reviews of aviation charges to ensure they remain competitive without stifling sector growth.

4. **Ground Handling and Cargo Operations**: Ground handling companies emphasised the high operational costs driven by fees related to cargo handling and import duties on specialised equipment. These charges, coupled with fuel costs and compliance expenses, affect their pricing strategies and competitiveness within the region. Ground handlers stressed the need for more favourable fee structures to support their operations and highlighted the challenges posed by current tax regimes.

5. **Challenges in Regional Tax Structures**: A recurring theme during the discussions was the fragmentation of tax structures across the region, with stakeholders noting that different tax regimes in neighbouring countries create operational and financial challenges for Zambian operators. This fragmentation puts Zambian airlines, fuel providers, and ground handlers at a competitive disadvantage, making it difficult to streamline costs and optimise operations across borders.

Republic of South Africa.

The stakeholder consultations in the Republic of South Africa aimed to evaluate the existing regulatory framework in South Africa and gather insights into how aviation taxes and charges affect the competitiveness and operational efficiency of the sector. South Africa, as one of Africa's largest and most developed aviation markets, plays a pivotal role in regional connectivity and is a key stakeholder in advancing the objectives of SAATM.

The current state of the aviation sector in South Africa is characterised by a well-established infrastructure, including several international airports and a network of domestic connections. However, the sector faces challenges such as high operational costs driven by fuel prices, regulatory compliance expenses, and fragmented tax structures that affect overall competitiveness.

The primary topic of discussion revolved around aviation charges, taxes, and fees, with an emphasis on the need to streamline and harmonise these across Africa to foster a more competitive and efficient aviation sector. Stakeholders highlighted that the current fragmented tax regimes across African countries create significant challenges for airlines and aviation service providers, leading to inefficiencies and increased operational costs. Different tax structures not only increase the administrative burden on operators but also create inconsistencies that hinder the growth of a unified aviation market under the SAATM initiative. The need for a harmonised approach was underscored as a crucial step toward reducing these inefficiencies and fostering a predictable regulatory environment that would attract investment and promote sustainable growth in the sector.

Namibia.

Namibia, known for its vast geographic area and relatively small population, relies heavily on air transport to connect communities, facilitate tourism, and drive economic growth. Therefore, the efficiency of its aviation sector is vital for supporting national development objectives.

The aviation sector in Namibia is characterised by modern infrastructure, including Hosea Kutako International Airport, which serves as a key gateway for both international and domestic travel. However, the sector faces challenges related to high operational costs, fragmented tax systems, and the burden of compliance with international standards.

1. **Aviation Charges and Taxes**: The Namibia Civil Aviation Authority (NCAA) emphasised a structured approach to setting aviation fees, grounded in consultations with stakeholders and compliance with International Civil Aviation Organisation (ICAO) guidelines. The discussion centred on ensuring transparency and the need for a consultative process to guarantee that aviation charges are justified and fair. The lack of a dedicated air transport policy within the broader Namibia Transport Policy of 2018 was noted, with stakeholders urging more focused support for the aviation industry, particularly in terms of capacity building and integrating regional initiatives like the SAATM.

2. **Fuel Costs**: High fuel costs emerged as a central challenge, particularly for airline operators, which reported that fuel accounts for 30-35% of their operational costs. Airport operators acknowledged the impact of unregulated fuel prices on operational efficiency. The company also highlighted that fuel taxes significantly contribute to these high costs, pushing airlines to adopt dynamic pricing strategies to maintain competitiveness. Airlines operating under tight financial constraints must carefully manage fixed costs to ensure profitability, which is further complicated by fuel price challenges.

3. **Challenges in Regional Tax Structures**: Stakeholders discussed the complexities of managing different tax regimes across African regions. Airlines, in particular, face operational difficulties when navigating fragmented tax structures and double taxation issues. The lack of harmonisation among tax systems across borders was identified as a significant barrier to competitiveness, particularly for Namibian airline operators, who must adapt to different tax policies while managing already high operational costs.

4. **Compliance with International Standards**: The CAA underscored the importance of maintaining compliance with ICAO regulations and international aviation standards. They emphasised the need for a consultative approach to setting fees and taxes, with all stakeholders engaged in the process. Compliance costs were also discussed, with airlines and airport operators highlighting the financial impact of adhering to international standards and the need for more balanced taxation to ensure compliance without overburdening the industry.

Sierra Leone.

The stakeholder consultation mission conducted in Sierra Leone forms part of the broader continental initiative to support the implementation of the Single African Air Transport Market (SAATM) and assess the harmonisation of aviation charges, taxes, and fees (TCFs). Sierra Leone's aviation ecosystem remains small but strategically positioned to support regional connectivity, provided certain fiscal and regulatory challenges are addressed. The mission engaged a cross-section of stakeholders across the aviation value chain including airlines, the Civil Aviation Authority (CAA), airport operators, ground handlers, fuel suppliers, travel agents, and the Ministry of Transport.

The findings highlighted systemic challenges embedded in the current taxation and charging framework, underscored by comparatively high-cost structures, infrastructural limitations, limited MRO capabilities, and a lack of harmonised regional policies. Despite Sierra Leone's modern infrastructure and openness to liberalisation, stakeholder feedback indicated that high aviation charges continue to limit both passenger volumes and airline interest in market expansion.

1. **High Passenger-Related Charges and Limited Transparency**

Aviation taxes and passenger-related fees were identified as among the most restrictive elements of Sierra Leone's aviation market. Passengers are subject to a range of cumulative charges embedded in ticket pricing, including a USD 100 airport usage fee and a USD 25 safety and security charge. Additionally, a USD 15 departure tax is applied per departing passenger. These values are often not itemised clearly during the booking process, leading to passenger confusion and a perceived lack of transparency. Travel agencies reported that these cumulative charges have a significant deterrent effect on travel demand, particularly for price-sensitive leisure travellers. Given the small market base—estimated at approximately 250,000 to 1 million passengers annually—such pricing disincentivises volume growth and undermines affordability in a region already grappling with economic constraints.

2. **Fuel Pricing, Taxation, and Infrastructure Limitations**

Fuel costs were universally cited as a critical operational burden. While Sierra Leone does not levy an import duty on jet fuel, it imposes a complex set of indirect charges that collectively inflate final pricing. These include: an inspection fee of USD 0.50 per tonne, a trade and levied charge of USD 2 per tonne, a pumped and harbour charge of USD 3 per tonne, a Standards Bureau charge of USD 1.30 per tonne, an ATE charge of USD 3 per tonne, and a jet certification charge of USD 2.50 per tonne. Additionally, each vessel arrival incurs a USD 1,000 inspection fee, and recertification tests cost USD 2,400, with fuel samples being sent to Senegal due to the absence of a local testing facility. A further USD 0.045 per litre royalty fee is imposed by the airport operator on all fuel sold. These cumulative levies make aviation fuel prices in Sierra Leone significantly less competitive than in regional peers such as Ghana, Guinea, and Senegal. Airlines frequently opt to refuel elsewhere or import fuel to mitigate these costs, directly affecting local sales volumes and undermining national fuel market viability.

3. **Ground Handling and Cargo-Related Taxation**

Ground handling operators face an extensive taxation regime. These include a 15% concession fee payable to the airport authority, a 20% security tax on cargo volume, and a royalty USD 0.20 per kilogram on cargo handled. Additional levies apply on fuel handling, and indirect costs arise from a 20% tax on imported equipment and commissions on foreign currency transactions. Ground handlers reported that infrastructure charges from the new terminal have been passed down to them without commensurate increases in operational flexibility or revenue potential. There is also a lack of clarity and consistency in service-level agreements, leaving providers exposed to cost escalation without mechanisms for recovery or price renegotiation.

4. Challenges in VAT and Service Tax Application

VAT and related service taxes are inconsistently applied across the aviation and travel sectors. While some aviation activities such as spare parts and airport services are VAT-exempt, other components—like office supplies and imported operational equipment—are subject to full taxation. Travel agencies are required to apply a 10% Government Service Tax (GST) on all published fares. This further inflates end-user prices, contributing to weak demand. No VAT exemptions or incentives are offered to travel service providers, and stakeholders pointed out that seasonal discounts from airlines, often used as mitigation, are insufficient to offset the broader tax burden. The absence of a harmonised VAT structure within ECOWAS adds complexity to regional operations and route planning.

5. Limited Regional Harmonisation and Market Coordination

Although Sierra Leone participates in regional aviation dialogues under the auspices of SAATM and ECOWAS, the practical implementation of tax harmonisation remains limited. A 25% reduction in aviation taxes, recommended at the ECOWAS level, has yet to be operationalised due to concerns over national revenue loss. While institutions such as the Civil Aviation Authority (CAA) and Ministry of Transport support harmonisation in principle, current fiscal policy remains fragmented and oriented toward short-term revenue protection. Stakeholders repeatedly underscored the need for cross-border policy alignment to reduce complexity, encourage competition, and enable more efficient network planning. Without such harmonisation, Sierra Leone risks further isolation within the liberalised African aviation landscape.

Seychelles.

The aviation sector in Seychelles plays a critical role in sustaining the country's economy, given its geographic isolation and dependence on international tourism and trade. As an island nation in the Indian Ocean, Seychelles relies almost entirely on-air transport for passenger mobility and high-value cargo movement, with its main international airport in Mahé serving as the primary gateway. The sector is characterised by a mix of state-owned and private operators and low traffic volumes relative to continental hubs. The regulatory framework remains largely centralised, with evolving efforts to align charges and policies with international standards and regional integration objectives under the SAATM initiative.

1. Fee Structures

One of the dominant concerns expressed was the lack of periodic review of core aeronautical charges. Aviation fees have remained unchanged for over three decades, despite significant market and operational developments. The Civil Aviation Authority confirmed that landing and parking charges, en-route fees, and passenger service fees were derived from ICAO guidelines but were never formally reassessed or indexed to inflation or cost recovery frameworks. Despite the formal separation of the Civil Aviation Authority from airport operations in 2025, the issue of legacy pricing structures remains unresolved.

Stakeholders highlighted that a key challenge identified is the lack of a clear policy framework for the implementation of taxes and charges by the government. Airline representatives noted that they work on long-term rate cycles, for example, 2026 rates will be announced in October 2025. Any unplanned introduction of new charges mid-year (e.g., July) will severely disrupt the corporate strategies and long-term forecasting.

2. Cost Composition, Taxation, and Price Transparency

Concerns were consistently raised regarding the opaque and fragmented nature of cost components embedded in airfares and operational charges. Domestic operators reported that landing fees based on per-passenger calculations account for approximately 18–20% of total service cost. VAT is applied at a flat rate of 15% on all billings, yet VAT returns are minimal in cases where services are self-contained, such as for operators managing their own maintenance or ticketing.

Passengers, according to feedback from airline and travel representatives, often describe ticket prices as “exorbitant,” particularly when the breakdown between government-imposed charges and airline base fares is not clearly communicated. The average passenger tax per round trip is estimated at USD 30, which significantly affects route profitability when passed on to travellers. For routes with marginal yields, high tax exposure can result in reduced frequency or route withdrawal.

3. Fuel Charges, Taxation, and Volume Sensitivity

The aviation fuel market in Seychelles is characterised by predictable pricing mechanisms but includes significant built-in costs. Fuel suppliers apply a port throughput fee of USD 3 per metric tonne, and a civil aviation throughput fee of USD 0.047 per US gallon. For domestic aviation, an excise tax of SCR 8.00 per litre is applied. According to the fuel providers, the charges and taxes constitute 40% of domestic aviation prices. These charges are passed on to customers. However, their concern is that this can lead to a reduction in volume.

Operators reported that smaller carriers lack the negotiating leverage to secure volume discounts or flexible margins, which are typically reserved for high-volume clients. While fuel pricing is reviewed quarterly and transparently communicated, the base taxation structure limits cost competitiveness for domestic operators. The absence of special pricing mechanisms or hedging frameworks further exposes smaller players to cost fluctuations.

4. MRO Tax and Import Logistics

Maintenance, Repair, and Overhaul (MRO) operations face a substantial financial burden due to high freight costs, import duties, and VAT on spare parts. Stakeholders reported that freight costs for imported aircraft components have increased fourfold in the past two years, exacerbated by the absence of a dedicated freight carrier in the country and the need to ship hazardous or DG materials via indirect, high-cost channels.

MRO services and parts are subject to the standard 15% VAT, and customs duties apply in full unless exemptions are granted to government-designated entities. Private operators indicated that they had received no tax exemptions for MRO-related imports, forcing them to absorb the full cost.

5. VAT and Customs Treatment

While international transport services and airport operations are eligible for VAT zero-rating or exemptions under national legislation, these privileges do not extend to private operators in domestic aviation or support services. All other stakeholders are subject to the standard 15% VAT, which applies to aviation goods, maintenance services, and fuel for domestic use.

Customs exemptions apply selectively. Equipment and fuel imported for use by designated fixed-wing carriers and aerodrome management authorities are exempt under existing regulations. However, private stakeholders confirmed that they must comply with the full customs tariff schedule, with only limited allowances for expedited clearance in Aircraft on Ground (AOG) situations.

6. Policy Coordination and Future Reform Outlook

According to the Ministry of Finance and related departments, tax policy in Seychelles undergoes structured review approximately every three years, with consultations across economic and sectoral ministries. Modelling tools and multiplier effect assessments are used to evaluate the macroeconomic impact of new taxes or changes to existing charges. However, several stakeholders raised concerns over the adequacy of consultation processes and the frequency of unilateral policy shifts without stakeholder input.

Operators described a general lack of structured engagement in fiscal policymaking, with several reporting instances where new charges were implemented with little to no advance warning. The harmonisation of aviation charges under SAATM was broadly supported in principle, with stakeholders recognising the potential for lower costs, increased traffic, and better regional coordination. However, there was consensus that practical implementation would require significant institutional effort, capacity building, and a robust legal framework to ensure consistency and compliance across all stakeholders.

Findings

The stakeholder consultations conducted across the following African countries, including Kenya, Zimbabwe, Zambia, South Africa, Namibia, Sierra Leone and Seychelles provided valuable insights into the challenges facing the aviation sector in relation to charges, taxes, and fees. The findings from these engagements highlighted both common challenges and country-specific issues.

One of the recurring themes across all missions was the burden of high fuel costs. In all countries, fuel costs were a critical challenge, often constituting a significant portion of operational expenses. Airlines and other aviation service providers frequently pointed to fuel taxes and the overall cost structure of fuel as barriers to profitability and regional competitiveness. This was particularly evident in Zambia, where airlines refuel in neighbouring countries due to lower fuel prices, and in Namibia, where fuel costs account for up to 35% of operational expenses for some airlines. Fuel tax harmonisation and cost mitigation strategies were emphasised as urgent areas for reform.

Another key issue that emerged was the fragmentation of tax structures across African regions. In all countries, stakeholders highlighted the challenges posed by navigating different tax regimes when operating across borders. The lack of harmonisation creates operational inefficiencies and complicates compliance, making it difficult for airlines and service providers to compete effectively on a regional level. The harmonisation of aviation taxes and fees across Africa, particularly within the framework of the SAATM was identified as a critical step toward improving regional connectivity and reducing operational costs.

The need for transparency in the collection and allocation of aviation fees was another common concern. Stakeholders across all missions called for more transparent and consultative processes in setting aviation charges. Ensuring that fees are justified and aligned with the services provided was seen as essential to building trust within the aviation sector and fostering a more predictable and competitive business environment. Periodic reviews of aviation charges were also recommended to ensure that fees remain competitive and do not stifle industry growth.

The stakeholder consultations also underscored the importance of compliance with international aviation standards. While necessary for maintaining safety and regulatory standards, compliance costs were highlighted as burdensome, particularly for smaller operators. Stakeholders called for more balanced regulatory frameworks that support compliance while minimising the financial strain on airlines and ground handlers. Collaborative approaches between aviation authorities and other stakeholders, including more structured consultations, were recommended to ensure that regulatory changes are implemented smoothly and with industry input.

**Note: Pending Missions: Senegal and Cabo Verde (Will be included in the Final Report)*

Questionnaire Analysis

The questionnaire analysis is a key component of the study for the harmonisation of aviation taxes, charges, and fees (TCFs) across the African aviation markets. This survey is designed to enhance collaboration between EASA/EU and AFCAC in the field of civil aviation. By focusing on the harmonisation of TCFs, this activity seeks to improve the efficiency, transparency, and competitiveness of the aviation industry across Africa.

The survey involved 14 respondents representing various sectors of the aviation industry, including civil aviation authorities, airline carriers, and airport operators from eight countries: Kenya, Libya, South Africa, Tanzania, Egypt, Botswana, Zambia, and Algeria. The deadline for submission was 31st of August 2024. The questionnaire was structured to gather data on the current practices related to aviation TCF, with 16 main questions focusing on key areas such as regulations, fee structures, landing fees, and exemptions. The main questions are divided into sub-questions for more specific details on the TCFs. The findings from the questionnaire will complement the comprehensive data analysis, providing a more holistic view of the aviation taxation landscape in Africa.

The questionnaire aimed to assess several key areas influencing the aviation industry, including taxation, fee structures, environmental charges, and fuel costs. Respondents provided valuable insights into current taxation and regulation practices:

1. **Current Taxation and Regulation**: Participants provided information on cargo, airport, and passenger taxes applicable in their regions, including specific types such as air passenger tax, air transportation tax, and air travel tax.
2. **Fee Structures**: They were asked to outline landing fee structures based on aircraft type and weight, identifying any additional surcharges such as environmental or security fees.
3. **Airfare Charges**: Questions explored the percentage of the airfare charged as departure taxes and provided breakdowns of fees for both domestic and international flights.
4. **Airport Charges**: Respondents were asked to rank various African airports based on their fee levels and to provide percentages of airport charges within overall passenger airfare.
5. **Fuel Costs**: Information was gathered on the current fuel charges at different airports, with specific reference to variable rates and taxes applied to aviation fuel.
6. **Environmental and Carbon Emission Taxes**: Participants reported on the presence of any carbon emission taxes or schemes and discussed the future of sustainable aviation fuel (SAF) usage.

This data collection will contribute to the development of strategies for the harmonisation of aviation-related charges across African markets, ultimately supporting the broader goal of enhanced economic cooperation and efficiency in the continent's aviation sector.

The combination of digital and physical responses allowed for a broad and diverse sample of aviation professionals to contribute to the study, ensuring that the findings reflect a wide range of perspectives and experiences. The insights gathered from the questionnaire analysis will be instrumental in informing policy recommendations aimed at fostering a more unified and competitive African aviation market.

Questionnaire responses

The questionnaire responses are presented in this section.

Question 1.

The first main question of the survey was designed to gather insights into the profile of the respondents based on their role in the aviation sector and the region in which they primarily operate. This question is divided into two parts.

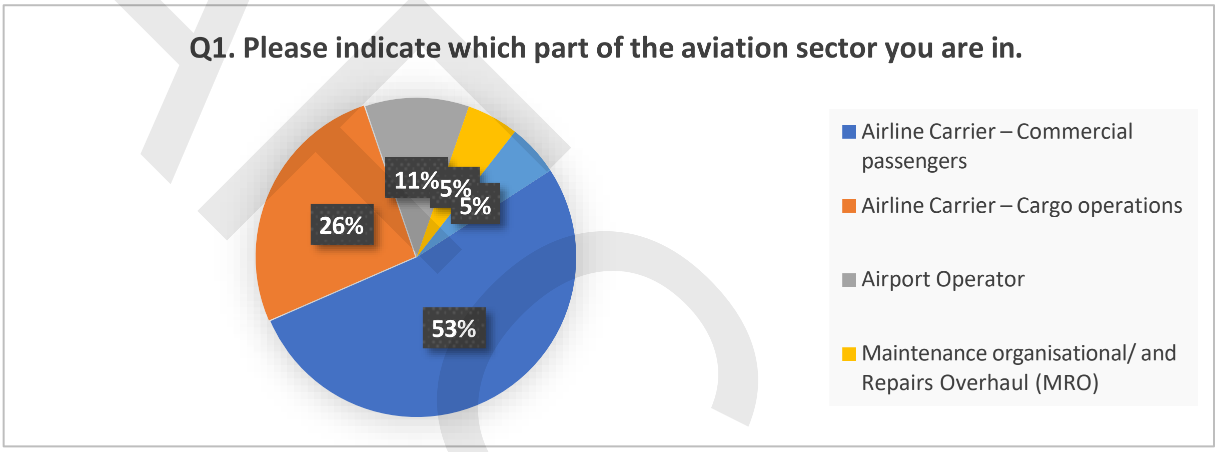


Figure 51 Category of the aviation sector

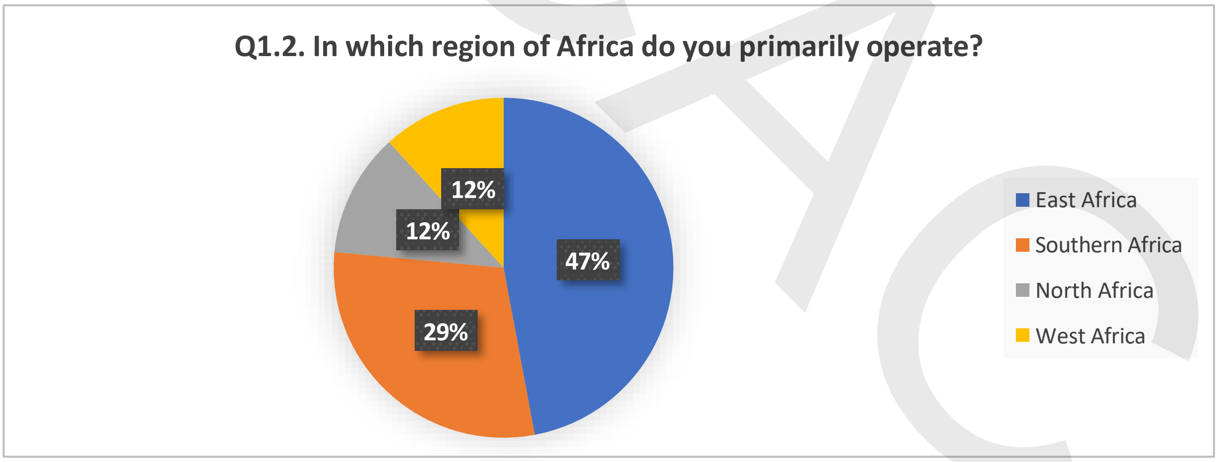


Figure 52 Region of aviation operation

Question 1, see Figure 51, asked respondents to indicate the part of the aviation sector they represent. The results showed that the majority, 53%, are from the airline carrier – commercial passengers' segment, followed by 26% from airline carrier – cargo operations. Other roles such as airport operators (11%), maintenance organisations and repairs overhaul (MRO) (5%), and others make up smaller portions of the respondents.

Question 1.2, see Figure 52, aimed to determine the geographic focus of the respondents' operations within Africa. The majority of respondents, 47%, operate primarily in East Africa, with 29% in Southern Africa and smaller but significant percentages in West Africa (12%) and North Africa (12%).

This two-part question is essential in providing a foundational understanding of the sectors and regions that the respondents represent, ensuring that the data collected is contextualised based on their industry roles and geographic operations.

Question 2.

The data presented in response to Question 2 of the survey offers rich insights into the regulatory landscape and taxation practices within the African aviation sector, particularly with respect to cargo, airport, and passenger taxes. By analysing the responses more deeply, a few key themes emerge that highlight both regional and sectoral variations in regulatory frameworks and tax implications.

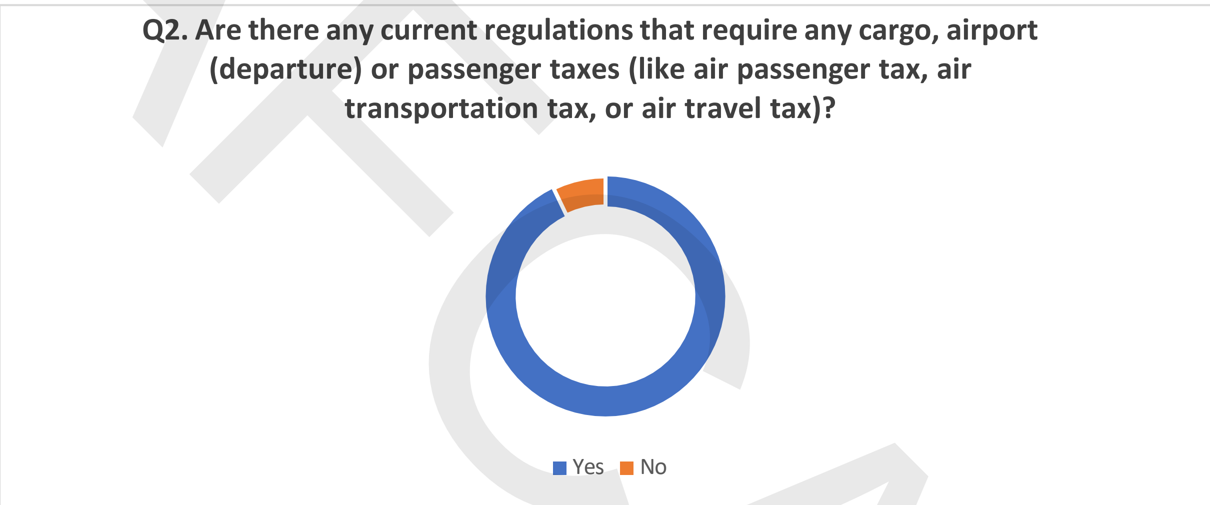


Figure 53 Responses to current regulations requiring cargo, airport or passenger taxes

From the above figure 53 related to Question 2, we observe that nearly 90% of respondents indicated the presence of regulations that require cargo, airport (departure), or passenger taxes. This near-universal presence of tax regulations underscores the structured and formalised nature of the aviation industry's fiscal responsibilities across most of the countries surveyed. This high adoption rate suggests that taxation mechanisms are integral to maintaining infrastructure, governmental revenue streams, and operational control within the aviation sector.

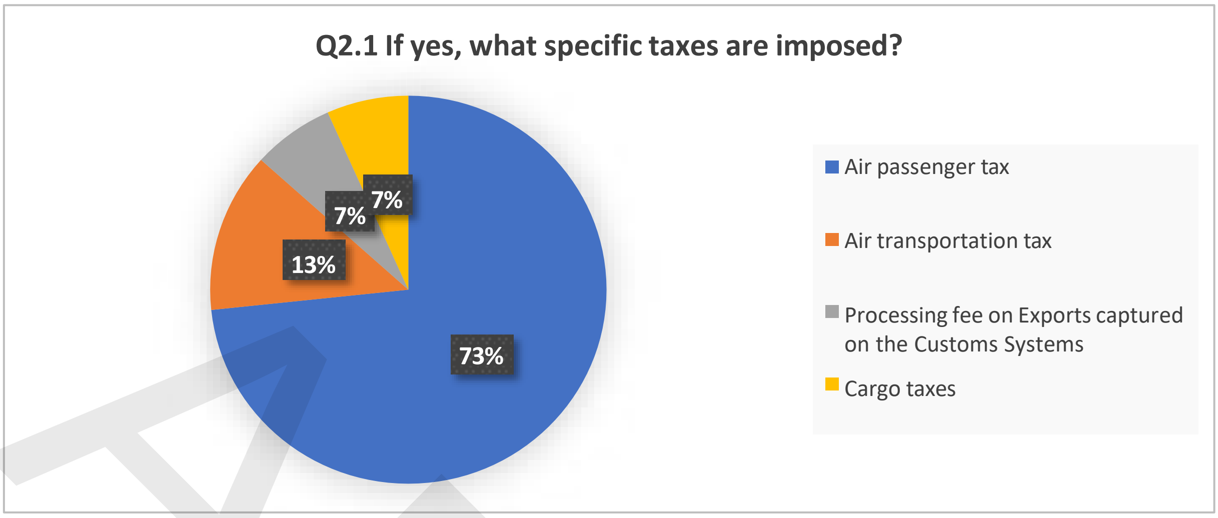


Figure 54 Specific taxes imposed by jurisdiction

As seen in Figure 54, 73% of participants indicating that air passenger tax is imposed in their jurisdictions. This suggests that taxing passengers is a common revenue strategy for many countries, reflecting the importance of passenger travel in generating governmental income from aviation. Air passenger tax is a widely accepted means of contributing to airport maintenance, regulatory compliance, and other infrastructure-related expenses.

Air transportation tax accounts for 13% of the responses, a smaller but still notable portion of the total. This lower incidence may suggest that some countries prefer to tax passengers directly rather than imposing additional air transportation taxes on the broader transportation logistics chain.

Processing fees on exports captured on customs systems and cargo taxes are reported by only 7% each. These low percentages suggest that while taxes on cargo and processing fees are present, they are applied more selectively, likely based on the volume of cargo operations or export regulations specific to particular countries. This could reflect the strategic focus of some nations on promoting cargo handling without imposing high taxes to foster trade and logistics efficiency.

Overall, this distribution reflects a focus on maximising revenue through direct passenger- related taxation while employing more selective and targeted taxation mechanisms for cargo and transportation-related operations.

Comments on Q2.2 What are the rates for air passenger tax (if applicable)	
Kenya	KES 600 for domestic passengers and USD 50 for international passengers.
Libya	USD 20
South Africa	This is dependent on destination, domestic is R29.33, Regional is R100, International is R190
Tanzania	International Pax 40 USD, Domestic Pax Tshs 10,000

Egypt	(EG 150-400 EGP / PAX) - (XK 150 EGP / PAX) - (XL INTR. 10.80 EGP/PAX -DOM 2.70 EGP/ PAX) - (Q7 2 EGP / PAX) - (DEPARTURE FEES USD 30 / PAX) - (O2 15 EGP / PAX) - (F7 30 EGP / PAX) - (JK 100 EGP / PAX).
Kenya	TU (International) – USD 50 KE (Domestic) - Kes 600
Botswana	Domestic passenger 96 and international 160
ZAMBIA	Not applicable by Customs
Kenya	USD 50 per passenger departure, KSH 600 per passenger departure
Kenya	KSHS 600 (Dom) & USD 50 (Intl) per pax
Tanzania	USD 40
Comments on Q2.2 What are the rates for air transportation tax (if applicable)	
Libya	USD 5
Kenya	KSH 250 per import document/waybill
Algerie	1500 DZD for international
Comments on Q2.2 What are the rates for air travel tax (if applicable)	
Algerie	VAT 19% for domestic

Table 18 Comments on rates for air passenger tax

Table 18, which details the rates for air passenger tax, shows significant variation across countries, highlighting different national approaches to taxation in the aviation sector. For example, Kenya charges KES 600 for domestic passengers (local currency in shillings) and USD 50 for international passengers, while South Africa has a more nuanced structure, with domestic rates at R29.33, regional at USD 5.48, and international at USD 10.42. These differences likely reflect the varying economic conditions, regulatory frameworks, and revenue priorities of each country. Tanzania and Libya have relatively comparable rates for international passengers, but Egypt has a more complex structure with multiple fees, including a departure fee of USD 30 per passenger.

In terms of air transportation tax (table 18), only a few countries, such as Libya and Kenya, impose this tax, and the rates are relatively low, suggesting that air transportation tax may not be a significant revenue source compared to air passenger tax. Algeria's VAT rate of 19% on domestic travel adds another layer of complexity to air travel taxation in some countries, indicating a focus on broader tax strategies beyond just air passenger fees.

If yes, please specify the conditions.	
South Africa	Infants under the age of 2 are excluded.
Kenya	Transit passengers, infants, Heads of states are exempted. If the consignee of the cargo is a humanitarian organisation

Algeria	VAT exemption on international flights, domestic flights Grand Sud, babies and crew.

Table 19 Conditions for travel exemptions

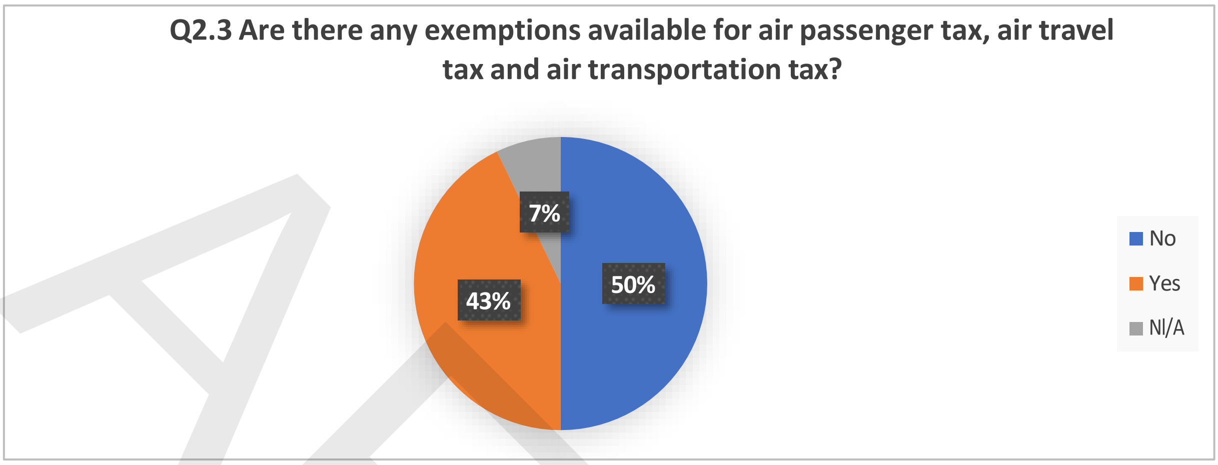


Figure 55 Exemptions available for air passenger tax, air travel tax and air transportation tax

The data on tax exemptions, provided in Figure 55, offers an intricate look into the socio-economic considerations that inform aviation tax policies. Approximately 43% of respondents indicated the presence of tax exemptions, while 50% noted that no such exemptions exist. The existence of exemptions for specific categories, such as infants, transit passengers, and humanitarian cargo (notably in Kenya and South Africa), suggests that there is a recognition of the need for flexibility in aviation taxation policy, particularly to support vulnerable populations and critical humanitarian missions.

Question 3.

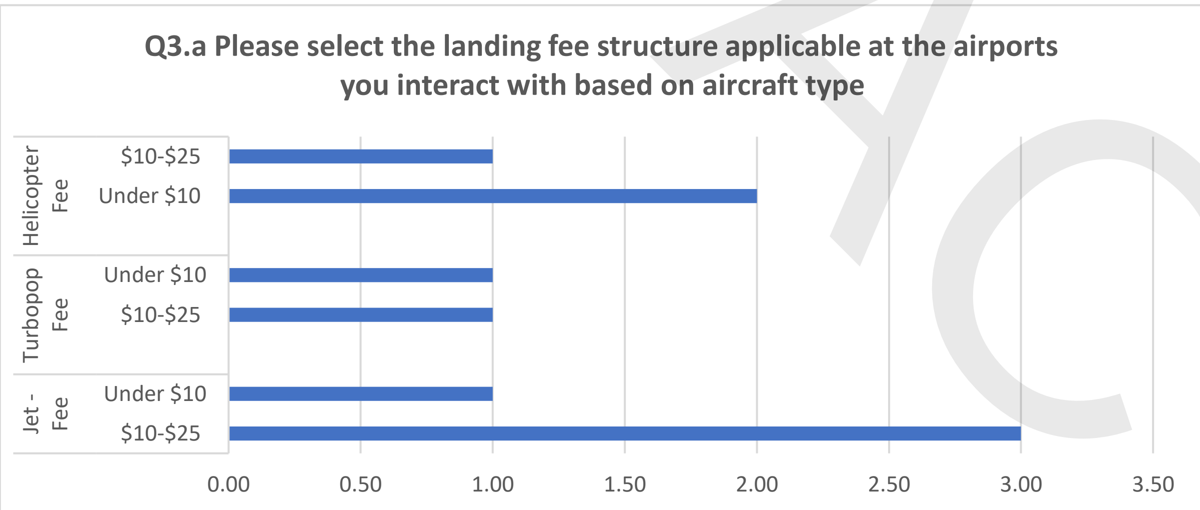


Figure 56 Landing fee structure based on aircraft type

The majority of respondents indicated that landing fees for jets fall within the USD 10 and USD 25 range. This suggests that medium-tier fees are more common for jet aircraft, likely reflecting the balance between operational costs and maintaining competitive landing rates at airports. The responses for Turboprop fees are evenly split between USD 10-USD 25 and under USD10 This indicates some variability in how different airports charge for turboprop landings, perhaps due to variations in airport size, region, or the volume of turboprop operations. For helicopters, the respondents indicated fees of under USD 10, with one respondent indicating USD10-USD 25. The lower fees for helicopters likely reflect their smaller size, lower weight, and typically less frequent commercial use compared to fixed-wing aircraft.

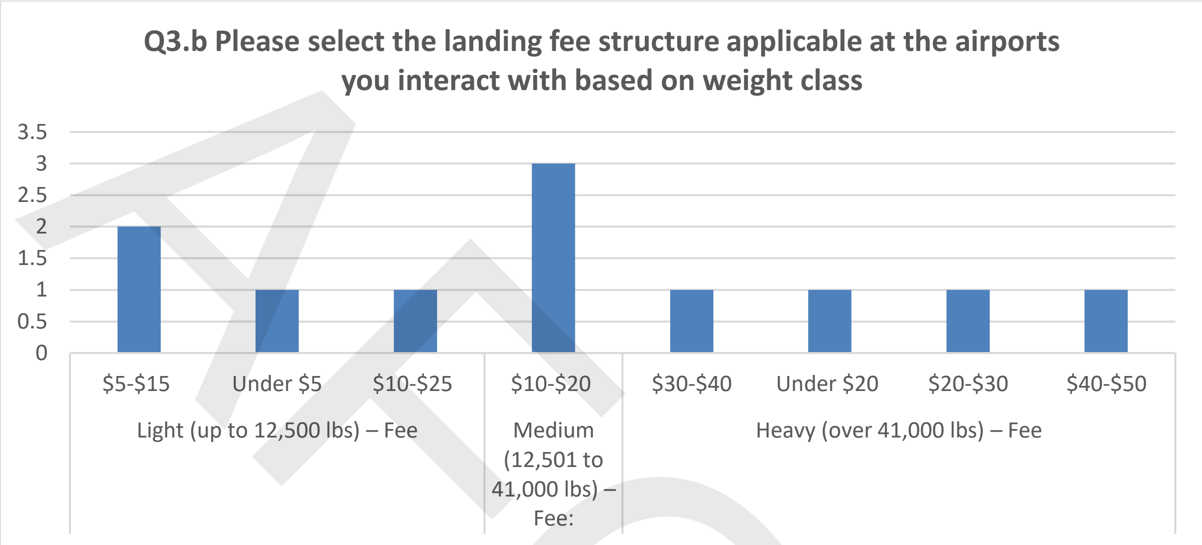


Figure 57 Landing fee structure based on weight class

There is a relatively even distribution of Light Aircraft (up to 12,500 lbs) fees across the categories, with 2 responses indicating fees between USD 5-USD 15, one indicating under USD5, and another USD 10-USD 25. The range suggests that landing fees for light aircraft can vary significantly depending on the airport, possibly due to differing airport capacities, infrastructure, or regional economic conditions.

All respondents reported fees in the USD10-USD 20 range for medium-weight aircraft. This indicates a consistent mid-tier landing fee for medium-sized planes, reflecting their larger size and the greater resources they require from airport infrastructure.

For heavy aircraft, the responses were more varied, with landing fees spread across a broad range: USD 30-USD 40, under USD 20, USD 20-USD 30, and USD 40-USD 50. The wide range of fees for heavy aircraft reflects the substantial operational demands these aircraft place on airports, and the variation could be due to differing airport sizes, regional fee structures, or the types of heavy aircraft being serviced.

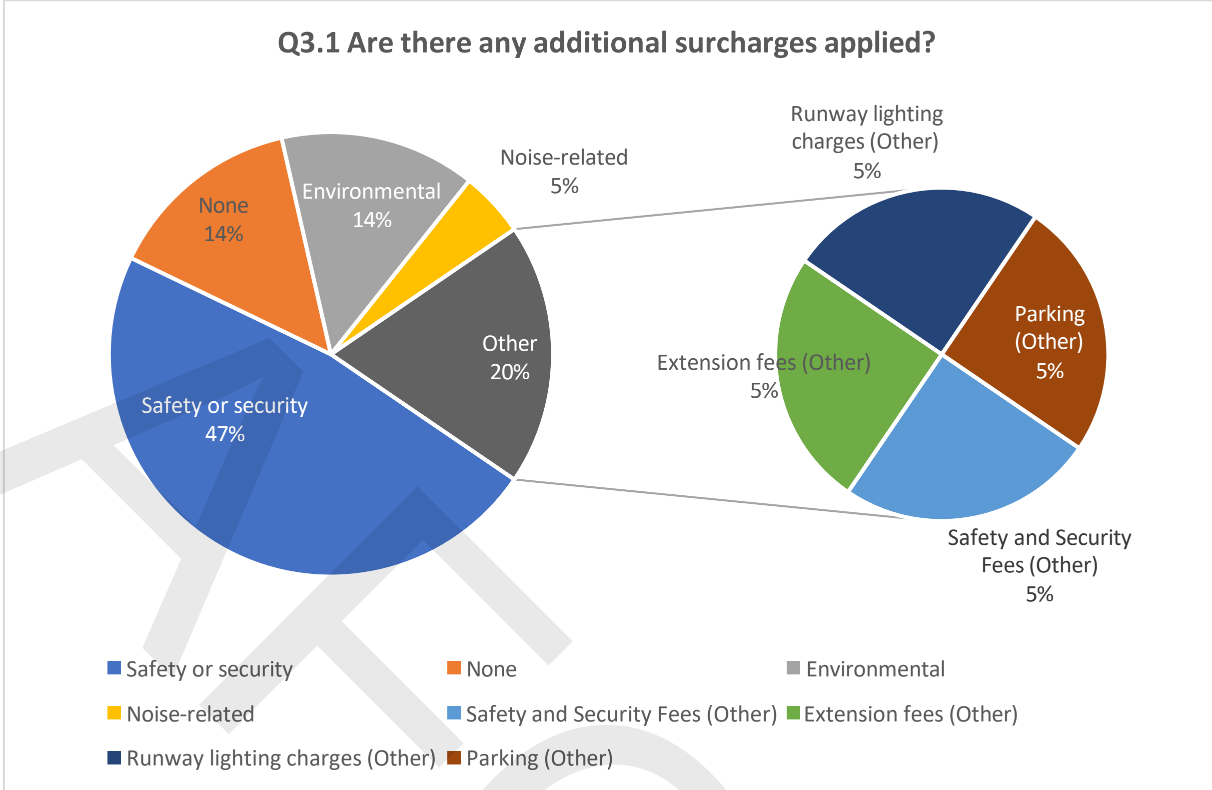


Figure 58 Additional surcharges applied

Safety or security surcharges are the most common, applied by 47% of respondents, representing the largest share. This is indicative of the priority given to safety and security within the aviation industry, as these charges likely cover mandatory regulatory requirements for ensuring secure operations and compliance with international safety standards.

Environmental surcharges and none are both represented by 14% of the responses. The application of environmental surcharges shows a growing awareness of sustainability within the sector, though it is not yet widely adopted. The 14% of respondents indicating no additional surcharges suggests that some airports may be maintaining competitive pricing strategies to attract more flights or may not have implemented surcharges beyond the basic landing fees.

Other surcharges collectively account for 20%, covering a diverse range of charges such as runway lighting, extension fees (for using the airport beyond operating hours), parking, and additional safety and security fees. These surcharges tend to reflect specific operational needs or exceptional services provided by the airport, suggesting that certain airports impose specialised fees based on their facilities and service offerings.

Noise-related surcharges represent a small fraction (5%) of the responses, indicating that noise pollution control measures, though important, are not universally enforced across the surveyed airports.

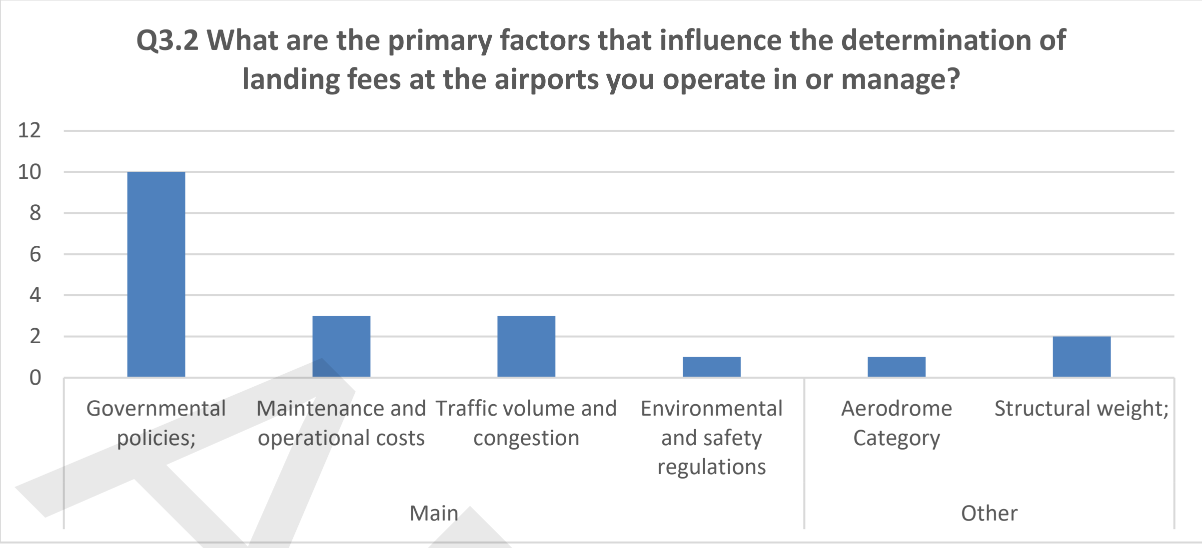


Figure 59 Primary factors that influence landing fees

Based on the data for Figure 59, the primary factors influencing the determination of landing fees at airports are largely driven by governmental policies, with 10 out of 14 respondents identifying this as the main factor. This reflects the significant role of national and regional governments in setting aviation policies and regulations, which in turn shape fee structures to align with broader economic, regulatory, and infrastructure goals.

Maintenance and operational costs and traffic volume and congestion were each cited by 3 respondents, indicating that airports also factor in the practical costs of running facilities and the demand placed on them by air traffic. These considerations ensure that airports can cover their operational expenses while also managing high-traffic periods effectively through adjusted fee structures.

One respondent cited environmental and safety regulations, suggesting that while these considerations are critical, they are not as widely reported as primary factors for determining fees. However, as environmental concerns grow and safety standards evolve, this may increase in significance.

In the other category, the aerodrome category and structural weight were noted, with structural weight highlighted by two respondents. This reflects that landing fees may also be adjusted based on the specific characteristics of the airport and the aircraft using its facilities, ensuring that fees are proportionate to the infrastructure required to handle larger, heavier planes.

Question 4.

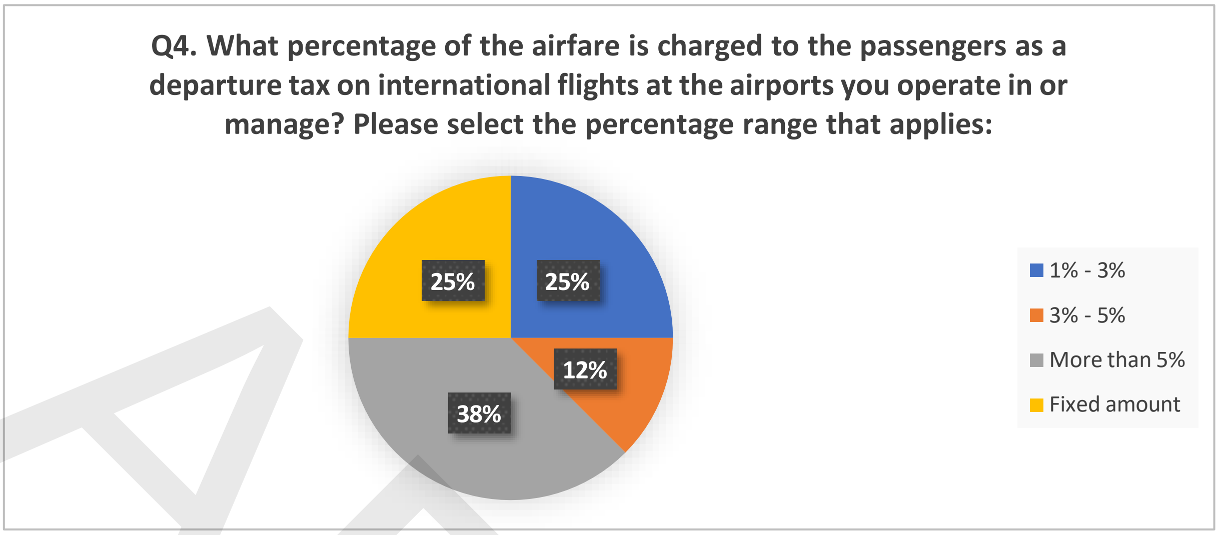


Figure 60 Percentage of airfare charged to the passengers

Based on Figure 60, which examines the percentage of airfare charged to passengers as a departure tax on international flights, several insights emerge:

More than 5% of airfare as departure tax is charged by 38% of respondents, making this the most common range. This suggests that airports imposing higher departure taxes may rely on this fee as a significant source of revenue.

1%-3% and fixed amount each account for 25% of respondents. Charging a fixed amount instead of a percentage suggests some airports prefer a more straightforward fee structure, possibly to make costs predictable for passengers and airlines.

Only 12% of respondents apply a tax within the 3%-5% range, suggesting that mid-range taxation is less common in the surveyed group.

This distribution indicates a broad variability in departure tax policies across different airports, with many leaning towards higher or fixed amounts, potentially reflecting their differing operational costs, government mandates, or strategic approaches to funding airport infrastructure.

Table 20 and 21 below provides more specific information on the exact range and fees for domestic (Q4.1) and international flights (Q4.2) based on the responses.

Comments on Q4.1 Please specify the typical Landing fee charge amounts for domestic flights.	
Kenya	USD 102
Libya	USD 5
South Africa	N/A
Tanzania	USD 5 per 1,000kg
Egypt	ACCORDING TO MAXIMUM TAKE OFF WEIGHT FOR AIRCRAFT

Kenya	Charges in Kenya for B 737-800 – USD 267
Botswana	BWP 1472
Kenya	Aircraft Day Landing: USD 10 – 1,750 (depending on maximum aircraft take-off weight) Aircraft Night Landing: USD 12 – 2,100 (depending on maximum aircraft take-off weight)
Tanzania	USD 5 per ton
Please specify the typical Terminal fee charge amounts for domestic flights.	
Libya	USD 50
Tanzania	Tshs 10,000
Kenya	Charges in Kenya for B 737-800 - USD 50
Country	Please specify the typical Service charge amounts for domestic flights.
Libya	USD 10
Tanzania	Tshs 10,000
Botswana	Security Charge BWP 101.20 PER PASSENGER
Tanzania	11
Please specify the typical Passenger facility charges amounts for domestic flights.	
Libya	USD 5
Kenya	Charges in Kenya for B 737-800 - USD 150 PER 2 hours (Boarding bridge)
Please specify the typical Domestic passenger ticket tax amounts for domestic flights.	
Kenya	KES 600
Libya	USD 10
Egypt	(EQ 2-4 USD / PAX – RH 5 USD / PAX – O9 9.85 USD / PAX – O2 15 EGP / PAX – XL 2.7 EGP / PAX – Q7 2 EGP / PAX)
Botswana	BWP110.40 PER PASSENGER
Kenya	KSH 600 per passenger departure
Kenya	600/= per pax
Tanzania	3.7
Tanzania	Tshs 10,000
Please specify the typical Visa fees amounts for domestic flights.	
Kenya	USD 34.95 per passenger in case of Irregular Operations where we have to take guests to hotel due to cancellations/disruptions

Table 20 Visa fees amount for domestic flights

Comments on Q4.1 Please specify the typical Landing fee amounts for international flights.	
Kenya	USD 102
Libya	USD 30
Tanzania	USD 5 per 1,000kg
Egypt	(39.92 USD / TON / DAY - 47.91 USD/ TON / NIGHT)
Kenya	Charges in Kenya for B 737-800 - USD 267

Kenya	Aircraft Day Landing: USD 10 – 1,750 (depending on maximum aircraft take-off weight) Aircraft Night Landing: USD 12 – 2,100 (depending on maximum aircraft take-off weight)
Tanzania	USD 5 per ton
Please specify the typical Terminal fee amounts for international flights.	
Tanzania	USD 40
Kenya	Charges in Kenya for B 737-800 – USD 50
Please specify the typical Service charges amounts for international flights.	
Libya	USD 10
Tanzania	USD 40
Tanzania	USD 30
Please specify the typical Passenger facility charges amounts for international flights.	
Libya	USD 20
Egypt	LOUNGE USD 25 / PAX STAR ALLIANCE
Kenya	Charges in Kenya for B 737-800 – USD 150 PER 2 hours (Boarding bridge)
Please specify the typical International passenger ticket tax amounts for international flights.	
Libya	USD 20
Egypt	(EG 150-400 EGP / PAX) - (XK 150 EGP / PAX) - (XL INTR. 10.80 EGP/PAX) - (Q7 2 EGP / PAX) - (DEPARTURE FEES USD 30 / PAX) - (O2 15 EGP / PAX) - (JK 100 EGP / PAX) (F7 30 EGP / PAX)
Botswana	BWP 184 PER PASSENGER
Kenya	USD 50 per passenger departure
Tanzania	USD 40
Please specify the typical Visa fees amounts for international flights.	
Kenya	USD 50
Egypt	PAID FOR GOVERNMENTAL AUTHORITY
Kenya	USD 34.95 per passenger in case of Irregular Operations where we have to take guests to hotel due to cancellations/disruptions.
Tanzania	Depending on type of visa and country of origin

Table 21 Range of fees for domestic and international flights

Question 5.

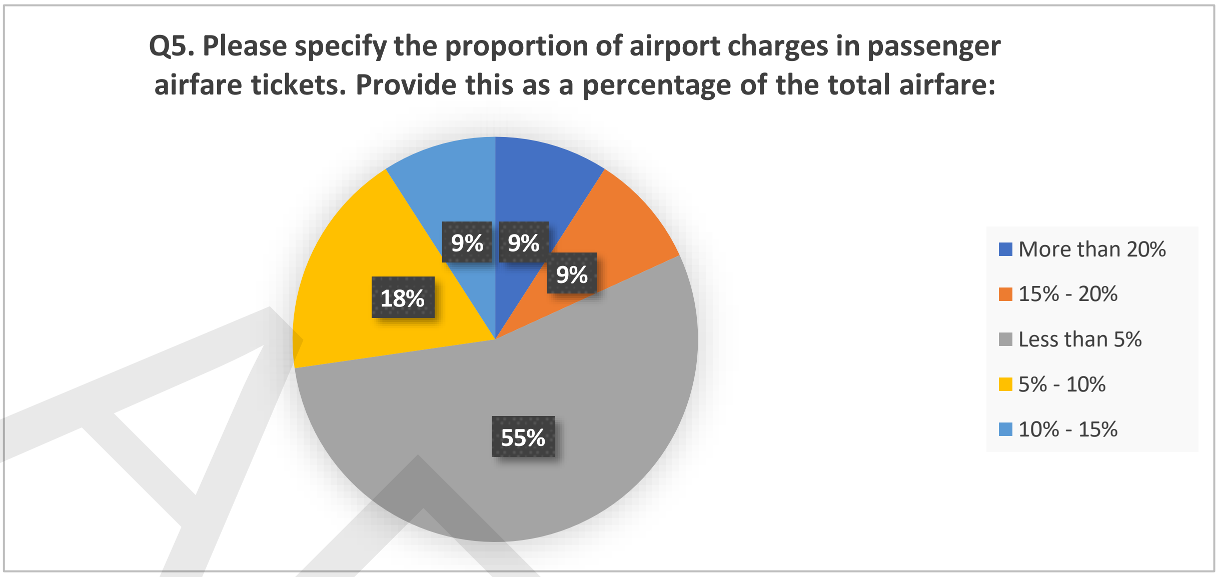


Figure 61 The proportion of airport charges in passenger airfare tickets

Figure 61, which asks respondents to specify the proportion of airport charges in passenger airfare tickets, the data reveals several key insights:

7. The majority of respondents, 55%, report that airport charges account for less than 5% of total airfare. This suggests that for most airlines, airport-related fees are kept relatively low in comparison to the overall cost of travel, which could help keep ticket prices competitive.
8. 18% of respondents indicate that airport charges range between 5% - 10% of the airfare, showing that a smaller proportion of airports have slightly higher fees, which may reflect higher operational costs or the inclusion of additional surcharges.
9. Other responses show a more even distribution, with 9% reporting fees in each of the following categories: 10% - 15%, 15% - 20%, and more than 20%. This small but notable group of airports where charges exceed 15% of the total airfare indicates that in some regions, passengers bear a much higher burden of airport-related fees, which may be due to factors such as airport infrastructure investments, government policies, or specific regional economic conditions.

In conclusion, while most airports appear to keep their charges below 5% of total airfare, there is a diverse range of fee structures across different regions, with a minority charging significantly higher fees. This variation suggests that airport charges are influenced by a mix of operational needs, regulatory frameworks, and market conditions.

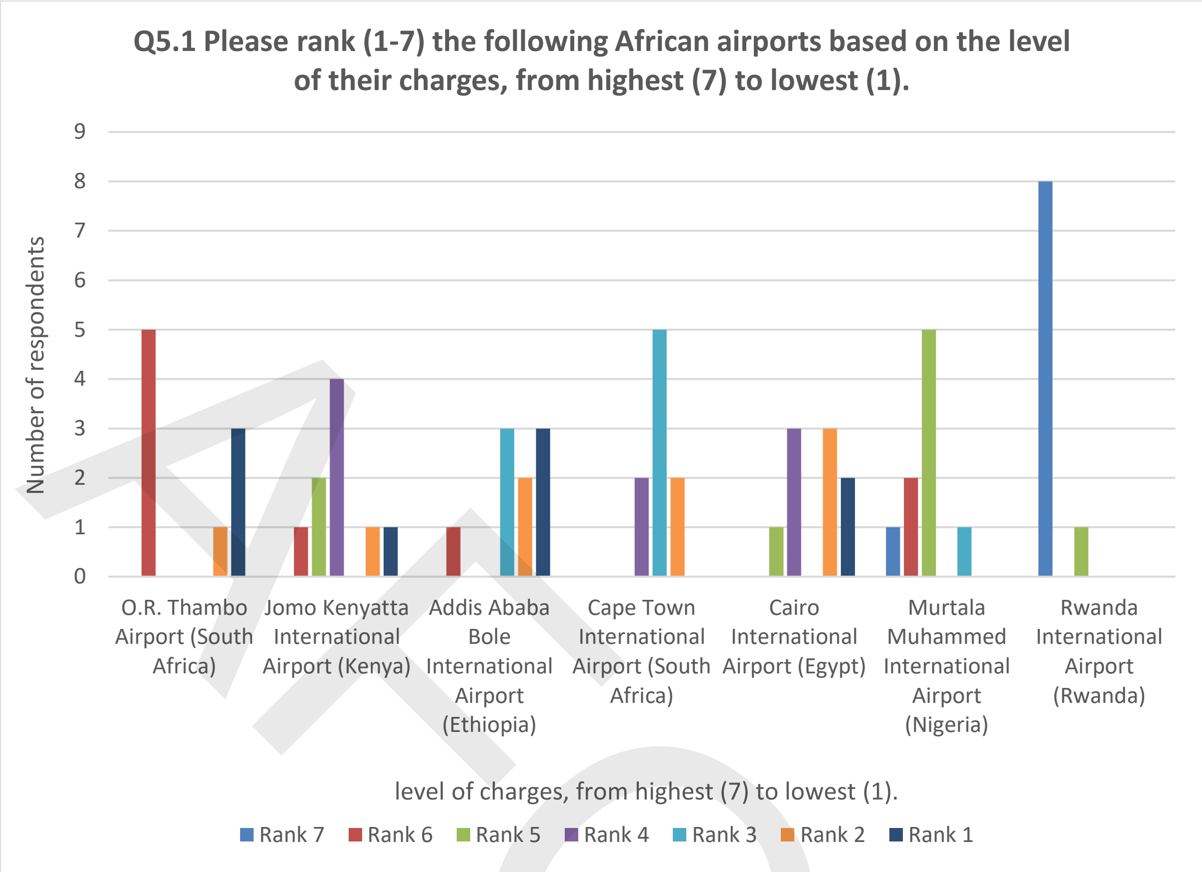


Figure 62 African airports based on the level of their charges

Based on the data from Figure 62, where respondents were asked to rank African airports based on the level of their charges from highest (7) to lowest (1), several key insights emerge. The rankings reveal a wide range of perceptions regarding airport charges across Africa. Rwanda International Airport is viewed as having the highest charges, while Addis Ababa Bole International Airport is perceived to have some of the lowest charges. O.R. Thambo and Jomo Kenyatta International airports appear to be ranked in the higher fee categories, while Cape Town and Murtala Muhammed are viewed as having mid-range fees. This variation reflects the diversity in fee structures and operational costs across different airports in Africa.

Question 6.

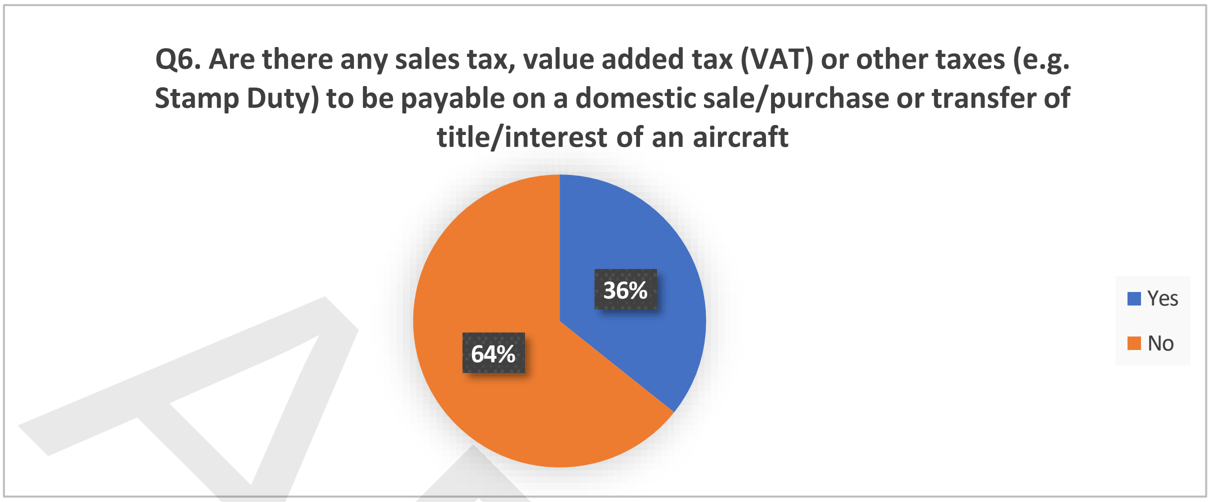


Figure 63 Sales tax, value added tax, other taxes

Based on Question 6, Figure 63, which addresses the applicability of taxes on the domestic sale, purchase, or transfer of aircraft or aircraft components, the data reveals the following insights:

64% of respondents (9 out of 14) indicated that there are no sales tax, VAT, or other taxes payable on the domestic sale/purchase or transfer of an aircraft. This suggests that in most regions covered by the survey, transactions involving aircraft may be exempt from such taxes, potentially to encourage aviation investment and expansion.

36% of respondents (5 out of 14) indicated that taxes are applicable, demonstrating that some regions do implement these taxes on aircraft transactions, which may increase the overall cost of acquiring or transferring aircraft.

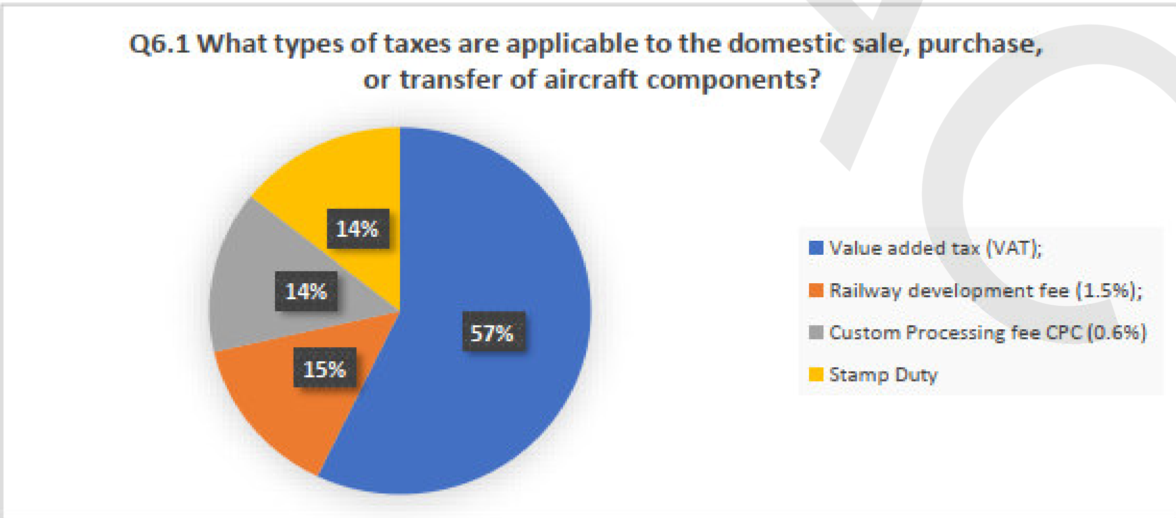


Figure 64 Taxes applicable to the domestic sale, purchase, transfer of aircraft components

Question 6.1, see Figure 64, specifies the types of taxes applicable:

- Value Added Tax (VAT) is the most commonly applied tax, with 57% of respondents indicating its use. VAT on aircraft transactions suggests that these governments view aircraft as standard goods subject to consumer taxes, or they are attempting to increase revenue from high-value sales.

Other taxes such as the railway development fee (1.5%), custom processing fee (0.6%), and stamp duty. These additional taxes may be more specialised, reflecting specific infrastructure development needs or administrative costs related to the aircraft industry.

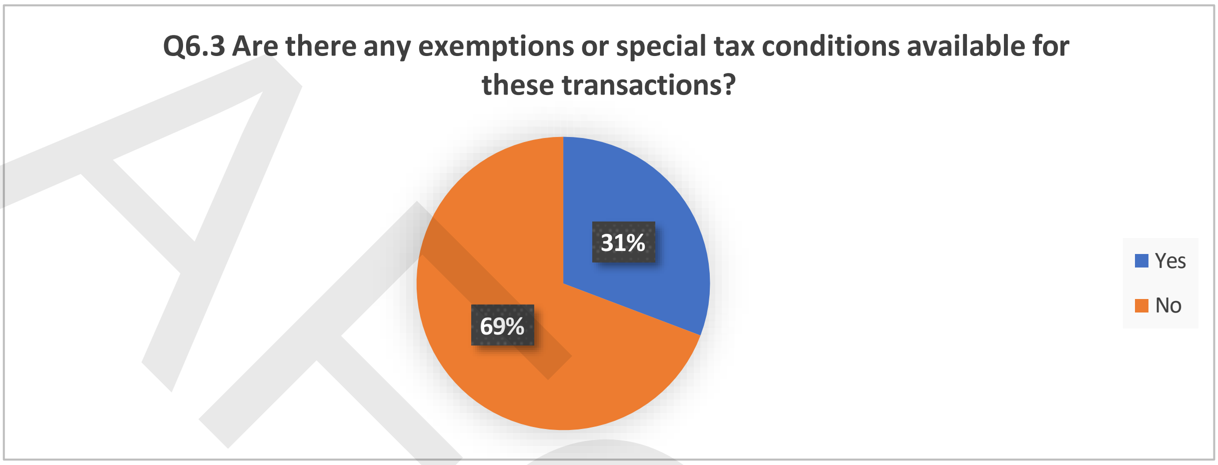


Figure 65 Exemptions or special tax conditions

In Figure 65, Question 6.3 asks whether there are any exemptions or special tax conditions available for transactions involving the domestic sale, purchase, or transfer of aircraft components, the responses provide key insights:

- 69% of respondents indicated that there are no exemptions or special tax conditions available for these transactions, suggesting that in the majority of regions, taxes apply uniformly without relief or incentives, potentially increasing the cost burden on the aviation industry.
- However, 31% of respondents indicated that exemptions are available. The specified exemptions include:

If yes, please specify exemptions and conditions
Excise duty for commercial aircraft is exempt.
VAT exemption for Commercial Passenger Aircrafts
Spare parts, Engine, and Maintenance are exempted from VAT.
Purchases of aircraft components are exempt from import duties.

Table 22 Exemptions and conditions

Question 7.

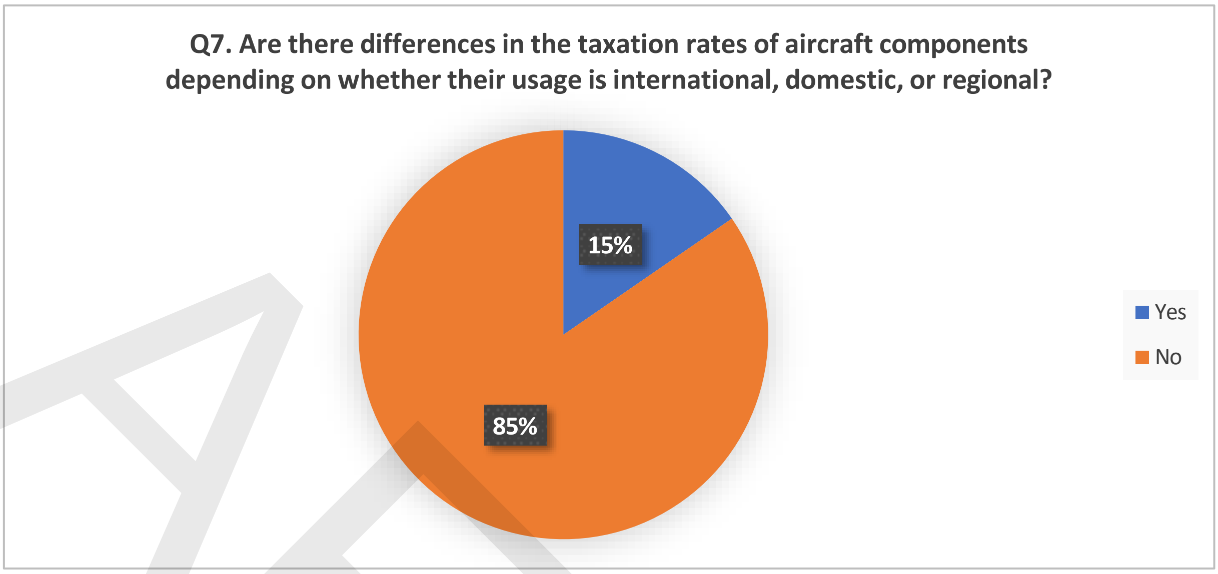


Figure 66 Differences in the taxation rates of aircraft components

Question 7, noted in Figure 66, asks if there are differences in the taxation rates of aircraft components depending on their usage (international, domestic, or regional). The results reveal the following:

- 85% of respondents indicated that there are no differences in the taxation rates based on usage, suggesting a uniform taxation policy across various categories of aircraft usage (international, domestic, or regional).
- 15% of respondents indicated that there are differences in the tax rates for aircraft components based on usage. According to the additional details provided, the tax rates for domestic usage are notably lower than those for international and regional usage:

If yes, please elaborate on how the tax rates differ for each usage category:			
	International	**Regional Usage:**	**Domestic Usage:**
Libya	USD 10.00	USD 10.00	USD 5.00
Tanzania	USD 40.00	USD 40.00	USD 3.70

Table 23 Tax rate differences by usage category

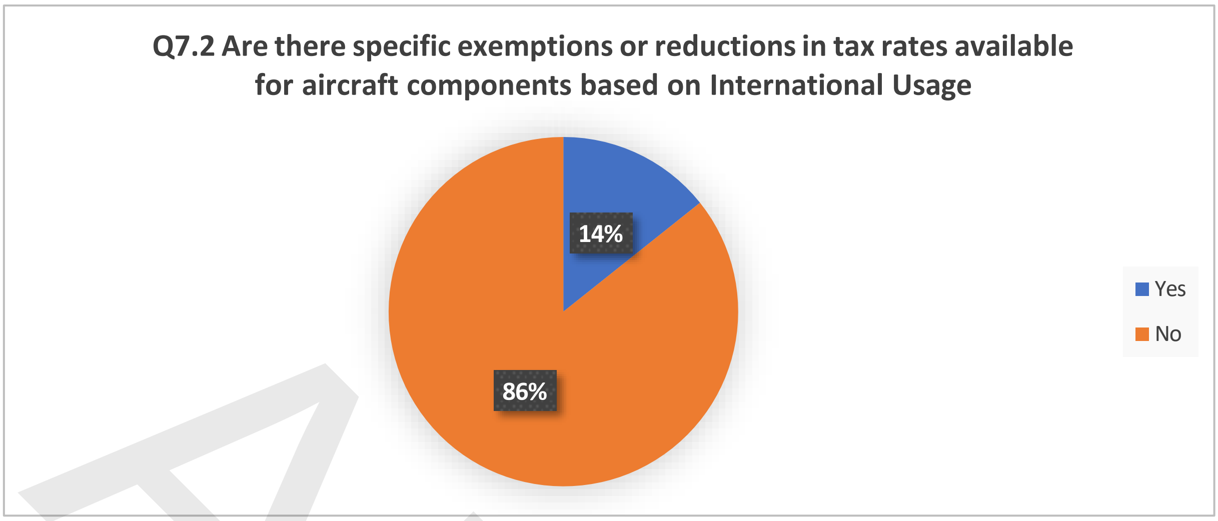


Figure 67 Specific exemptions or reductions in tax rates based on international usage

For Question 7.2, Figure 67, which explores specific exemptions or reductions in tax rates for aircraft components based on international and domestic usage, the results provide the following insights:

International Usage Exemptions:

- 86% of respondents indicated that there are no exemptions or reductions in tax rates for aircraft components based on international usage.
- 14% of respondents indicated that there are exemptions available. The specified exemptions include:

Comments on Q7.2 for International Usage Exemptions
Remission Of Customs Duty and Import Vat on Spares for Commercial Aircrafts Registered By Civil Aviation as Public Airlines
Customs Duty

Table 24 International usage exemptions

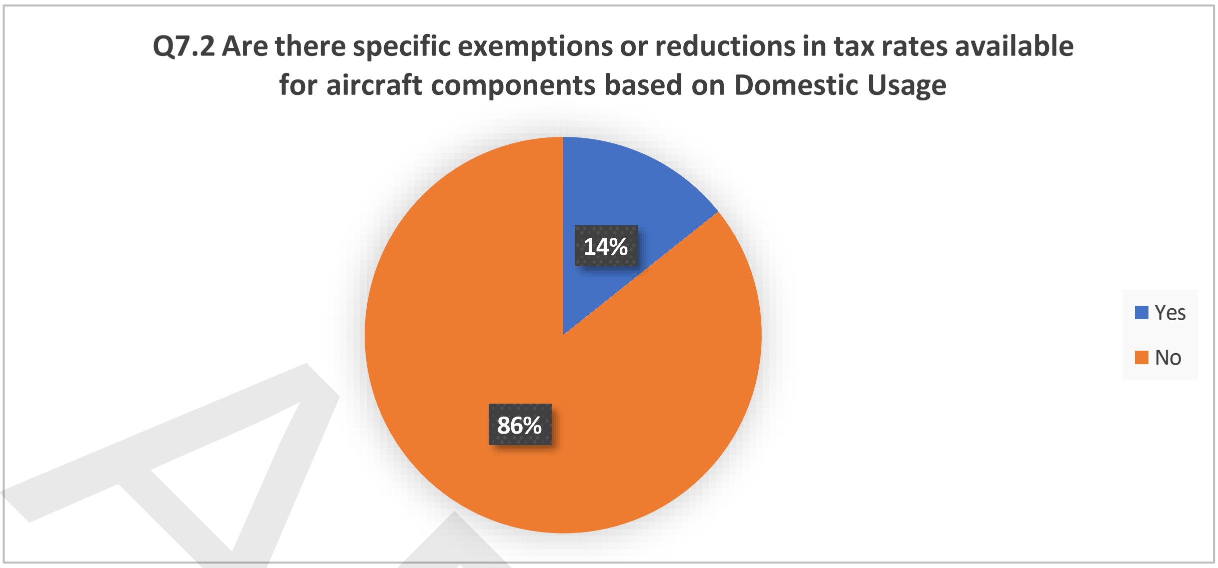


Figure 68 Exemptions or reductions in tax rates based on domestic usage

Similarly, 86% of respondents indicated that there are no exemptions for domestic usage, with 14% reporting exemptions. The specified exemptions are mentioned below

Comments on Q7.2 for Domestic Usage
Treated as above If registered as commercial public transport aircrafts by civil aviation
Customs Duty

Table 25 Domestic usage

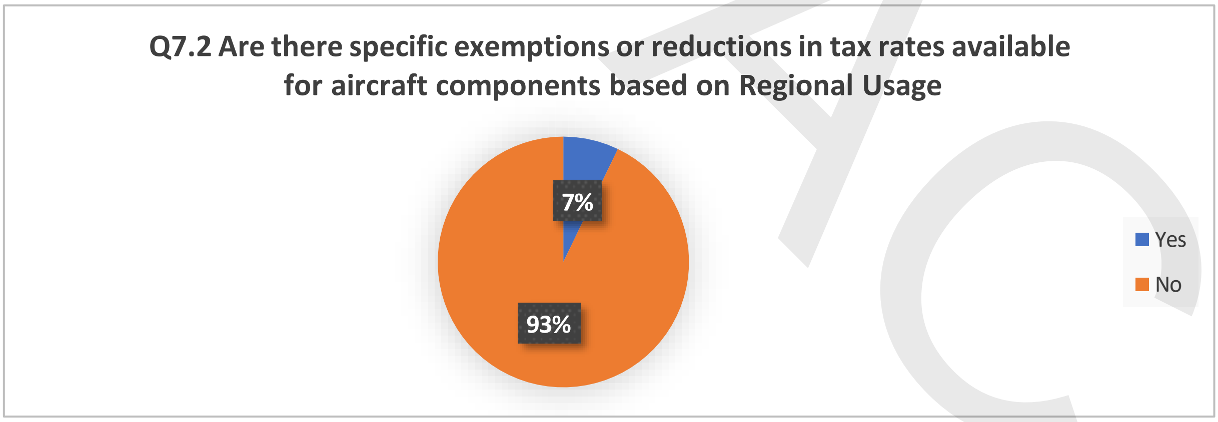


Figure 69 Exemptions or reductions in tax rates based on regional usage

Question 8.

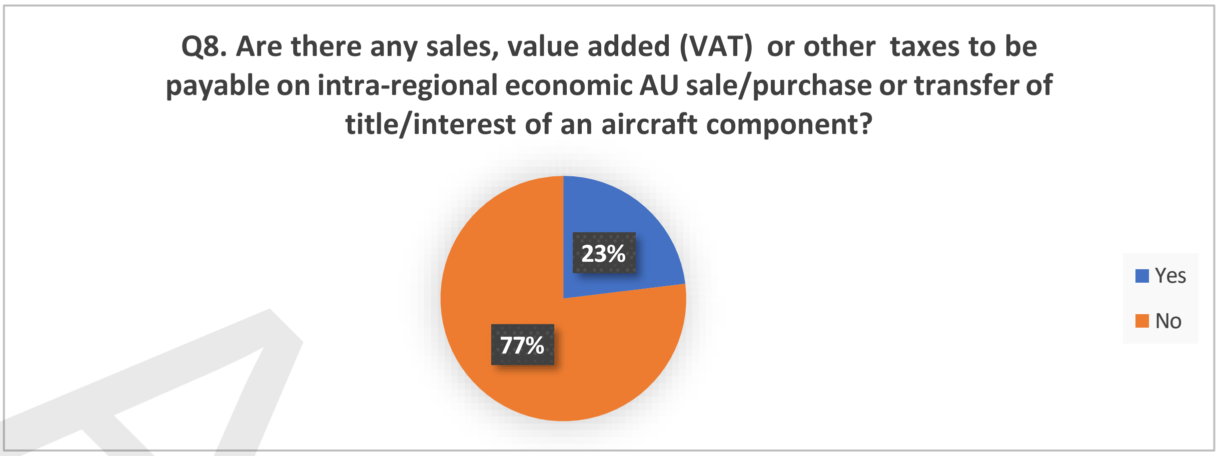


Figure 70 Sales, value added or other taxes payable on intra-regional economic AU sale/purchase or transfer of title/interest of an aircraft component

Question 8, as noted in Figure 70, asks whether any sales, value-added tax (VAT), or other taxes are payable on intra-regional economic African Union (AU) sale, purchase, or transfer of aircraft components; the results show:

- 77% of respondents indicated that there are no sales, VAT, or other taxes payable on intra-regional AU aircraft component transactions. This suggests that most regions covered in the survey either do not impose taxes on these transactions or have exemptions in place to encourage regional cooperation and trade within the AU aviation sector.
- 23% of respondents reported that such taxes do exist, indicating that in some regions, aircraft component transactions are still subject to VAT or other taxes, possibly reflecting local fiscal policies or revenue needs that prioritise taxation even within intra- regional trade.

Question 9.

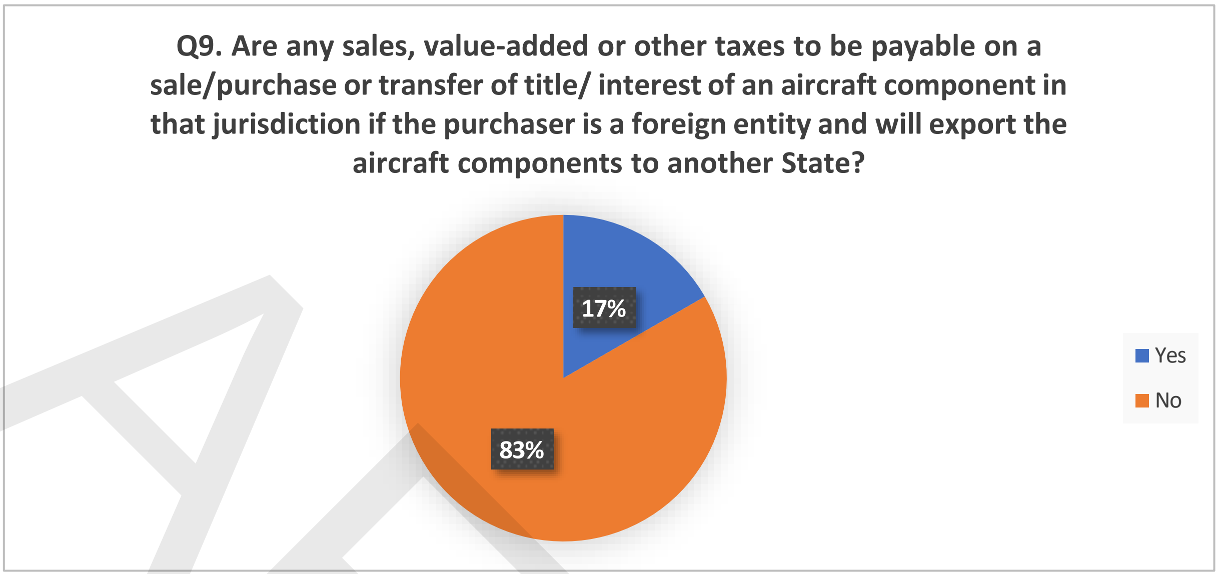


Figure 71 Sales, value-added or other taxes payable on a sale/purchase or transfer of title/interest of an aircraft component

Based on the responses to Question 9, Figure 71, the majority of jurisdictions (83%) do not impose taxes on the sale of aircraft components to foreign entities that will export the components, supporting international aviation trade. However, in some regions, taxes like VAT, customs duties, and excise duties still apply, suggesting that these regions use such transactions as an opportunity for revenue generation or to regulate exports.

Comments on the specific types of taxes applied (e.g., sales tax, VAT, etc.) based on Q9
VAT, Excise Duty, Stamp Duty, Customs Duty, Import Duty
Withholding tax
Comments on Q9.1 What are the rates for the applicable taxes mentioned above?
from **Minimum 3% to Maximum 16%**
10%

Table 26 Specific types of taxes applied

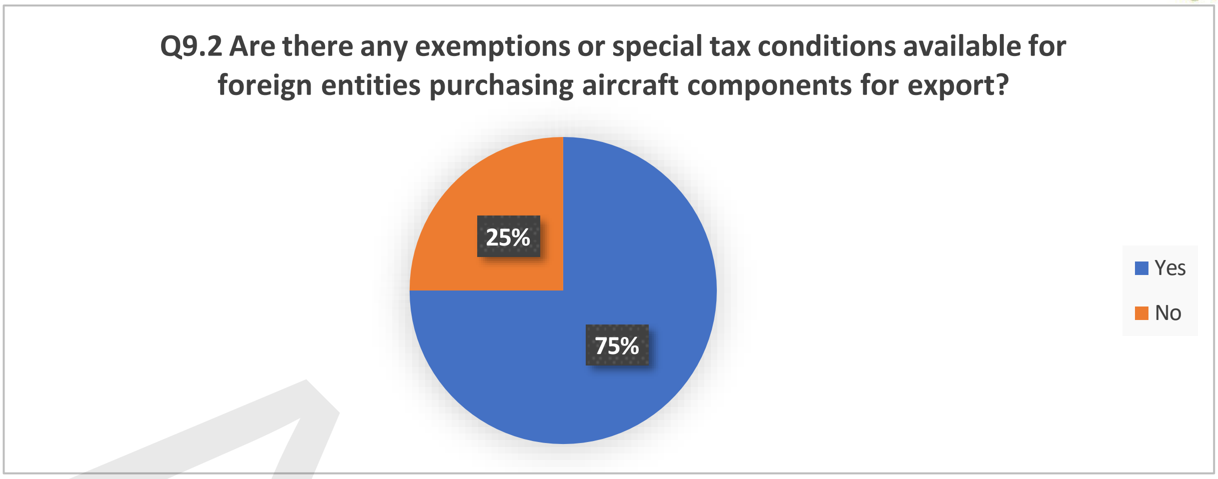


Figure 72 Exemptions or special tax conditions available for foreign entities purchasing aircraft components for export

Comments on Q9.2 for the specific exemptions and conditions
Local purchases and imports of spare parts, engines, and maintenance are exempted from Value added Tax.
Aircraft components are exempt from duties.

Table 27 Specific exemptions and condition

The data from Q9, Table 26 and 27, which examines whether there are exemptions or special tax conditions available to foreign entities purchasing aircraft components for export, presents the following insights. A significant majority of respondents (75%) indicated that no exemptions or special tax conditions apply to such transactions. This suggests that in most jurisdictions, foreign entities are subject to the same standard taxation frameworks as domestic entities when purchasing aircraft components for export. The absence of exemptions may reflect governmental policies aimed at maintaining consistent revenue streams from taxation, regardless of the purchaser's origin or the transaction's international nature.

Conversely, 25% of respondents reported that exemptions are available. These exemptions typically focus on reducing or eliminating Value Added Tax (VAT) for the local purchase and import of critical aircraft components such as spare parts, engines, and maintenance services.

Additionally, duties on aircraft components are sometimes waived. These tax relief measures are likely designed to encourage foreign trade by reducing the financial burden on foreign purchasers and enhancing the competitive positioning of domestic suppliers within the global aviation market.

Question 10.

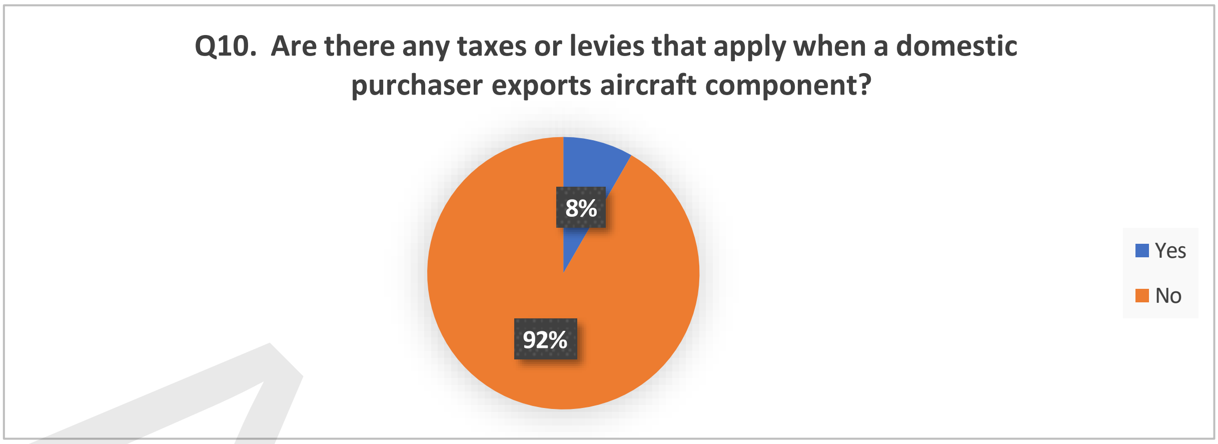


Figure 73 Taxes or levies that apply on a domestic purchase export

Question 10, Figure 73, investigates whether any taxes or levies apply when a domestic purchaser exports aircraft components, the results are as follows:

- 92% of respondents indicated that no taxes or levies apply when a domestic purchaser exports aircraft component. This finding suggests that the vast majority of jurisdictions aim to promote exports by not imposing additional financial burdens on domestic entities exporting aircraft components. Such policies are likely designed to enhance the competitiveness of local manufacturers and suppliers in the global market by removing barriers to international trade.
- 8% of respondents noted that taxes or levies do apply in such cases. Although this is a minority, it indicates that some regions may still impose fiscal obligations on domestic entities during the export process.

A respondent from Kenya indicated the following:

1. *Tax (VAT) Exemptions* - Zero-Rating for Exports: (Aircraft components exported are zero- rated for VAT and Seller can claim a refund on input VAT).
2. *Customs Duty Exemptions* - Export Processing Zones (EPZs): (Exemptions on customs duties for imported raw materials/components used in exported products). Bonded Warehouses: (Exempt from customs duties and VAT until removed for local consumption and No duties if exported).
3. *Import Duty Refunds* - Duty Drawback Scheme: (Refund of import duties on materials/components used in exported goods).
4. *Tax Treaties and International Agreements* - Bilateral Air Services Agreements (BASAs): (May include tax exemptions for aircraft/components for airlines under these agreements).
5. *Corporate Income Tax Exemptions* - EPZ Companies:(10-year corporate income tax holiday and Reduced tax rate for subsequent years).

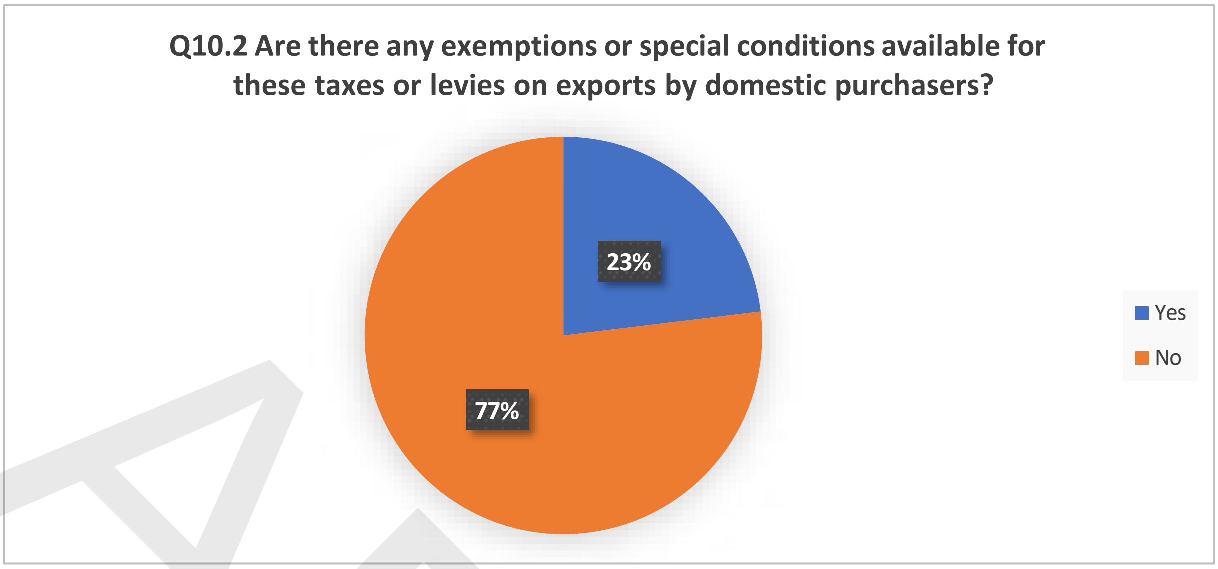


Figure 74 Exemptions or special conditions available for taxes and levies on exports by domestic purchases

Question 10.2, Figure 74, inquiries about the availability of exemptions or special tax conditions for exports by domestic purchasers. The data presents the following insights:

- 77% of respondents indicated that no exemptions or special conditions apply to taxes or levies on exports of aircraft components by domestic purchasers. This suggests that, in the majority of jurisdictions, standard tax policies remain in place for exports, reflecting a consistent approach to revenue collection, even in the context of international trade. Such policies may prioritise maintaining tax revenues over providing incentives for export activities.

In contrast, 23% of respondents reported the existence of exemptions or special conditions. These include:

Comments on Q10.2 for the specific exemptions and conditions
A taxpayer dealing with exports is entitled to refund claim of VAT paid locally provided they have a valid invoice, and the purchase is claimable.
Yes (Applicable to certain payments to non-residents, typically 20%, unless reduced by tax treaties):
Export of components is duty-free

Table 28 Comments on Q10.2 for the specific exemptions and conditions

Question 11.

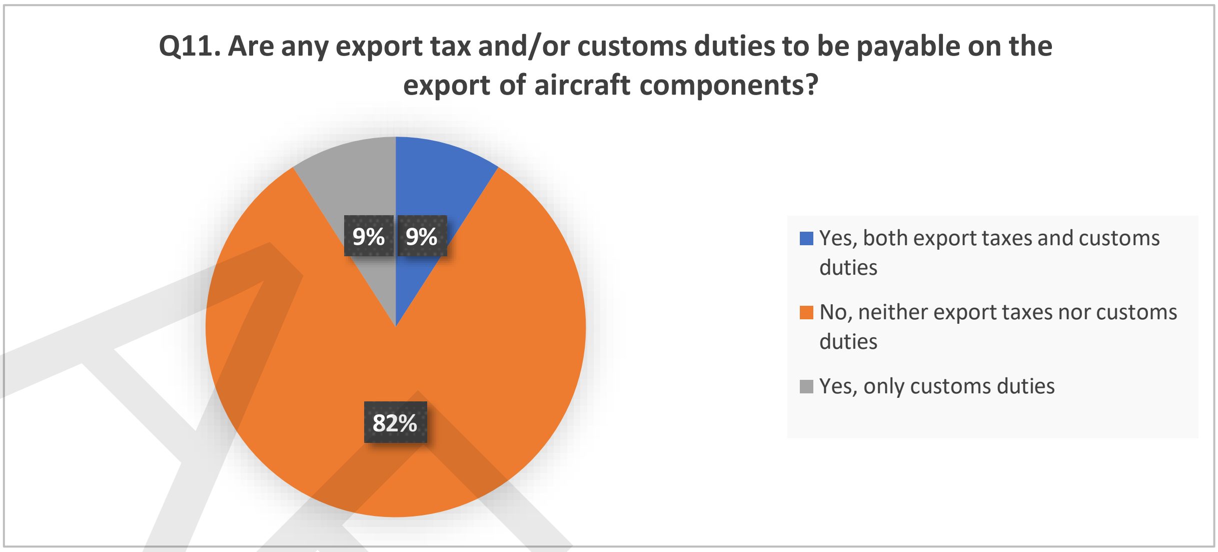


Figure 75 Export tax and/or customs duties to be payable on the export of aircraft components

The vast majority of jurisdictions (82%) do not impose export taxes or customs duties on the export of aircraft components, reflecting a pro-export stance aimed at enhancing the competitiveness of domestic industries on the global stage.

However, a small percentage of jurisdictions (9%) apply customs duties, and an even smaller group imposes both export taxes and customs duties, reflecting varied fiscal strategies regarding the regulation and taxation of exports within the aviation sector. This variability highlights differences in how regions approach balancing revenue generation with international trade facilitation.

Question 12.

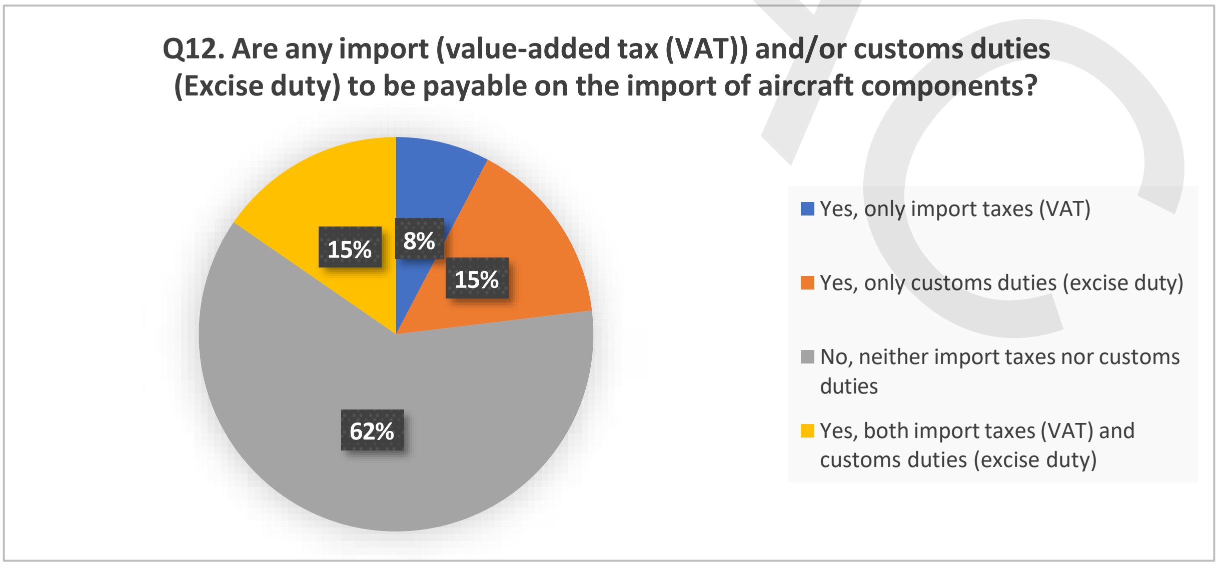


Figure 76 Import and/or customs duties to be payable on the import of aircraft components

For Question 12, Figure 76, which investigates whether import taxes (such as VAT) and/or customs duties (excise duty) are payable on the import of aircraft components, the data reveals the following insights:

- 62% of respondents indicated that neither import taxes nor customs duties are payable on the import of aircraft components. This suggests that the majority of jurisdictions prioritise facilitating the importation of aircraft components, which is likely to support the aviation sector by minimising the costs associated with importing vital parts and materials.

However, in some regions, customs duties and/or VAT are imposed on imports, with rates varying significantly:

Comments on Q12 for the specific customs duty rates	
Libya	USD 20.00
Botswana	14%
Kenya	0% to 10%, depending on their specific classification under the harmonised system (HS) codes NB (The HS codes are an international nomenclature for the classification of products and goods. Managed by the World Customs Organisation (WCO), the HS system is used globally to standardise the classification of traded products for customs and trade purposes.
Tanzania	0%,10%,25%,35%

Table 29 Comments on Q12 for the specific customs duty rates

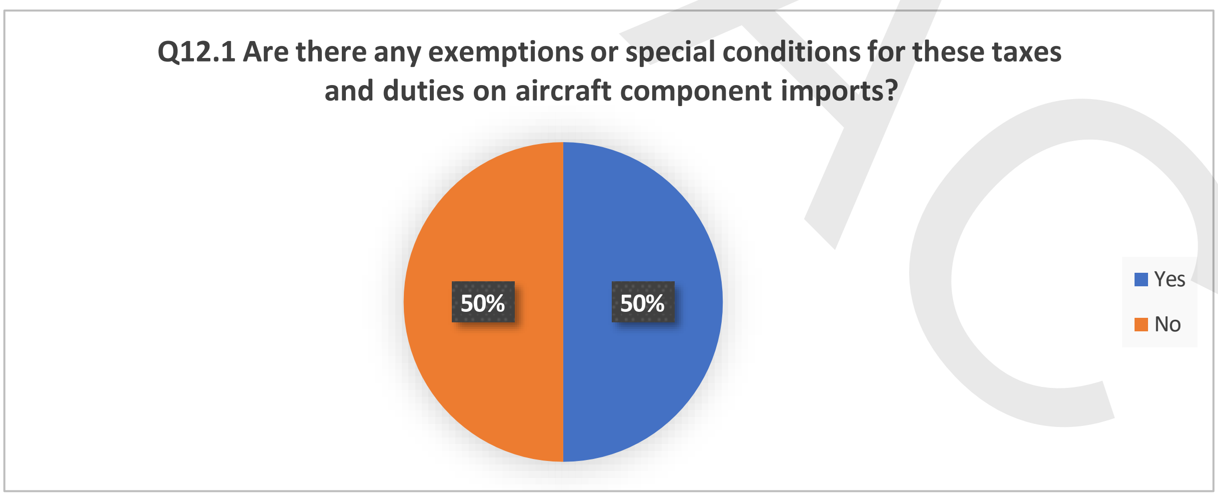


Figure 77 Exemptions or special conditions for taxes and duties on aircraft component imports

For Q12.1, Figure 77, which investigates whether there are any exemptions or special conditions for taxes and duties on aircraft component imports, the results show an even split:

- 50% of respondents indicated that there are exemptions or special conditions for the import of aircraft components, while the other 50% stated there are no such exemptions.

The specified exemptions and conditions include:

Comments on Q12.1 on the specific exemptions and conditions	
Tanzania	Custom Duty Exemption on import of Aircraft & related items.
Kenya	They are exempt from VAT, IDF, RDL
Kenya	KCAA letter confirming component is an aircraft part
Kenya	Zero-Rating for International Air Transport: Aircraft components used by licensed international airlines are zero-rated for VAT; I:> Export Processing Zones (EPZs): Components imported into EPZs for manufacturing export goods are exempt from customs duties and VAT. Specific Customs Tariff Exemptions: Certain aircraft components may be exempt from customs duties under specific HS codes per the EAC CET. Duty Drawback Scheme: Refunds for import duties are available for components used in manufacturing goods that are exported. Bilateral Air Services Agreements (BASAs): Aircraft and components imported by airlines under BASAs may qualify for exemptions.
Kenya	Import duty exemption
Tanzania	Import of aircraft components is taxed at zero rate.

Table 30 Comments on Q12.1 on the specific exemptions and conditions

Question 13.

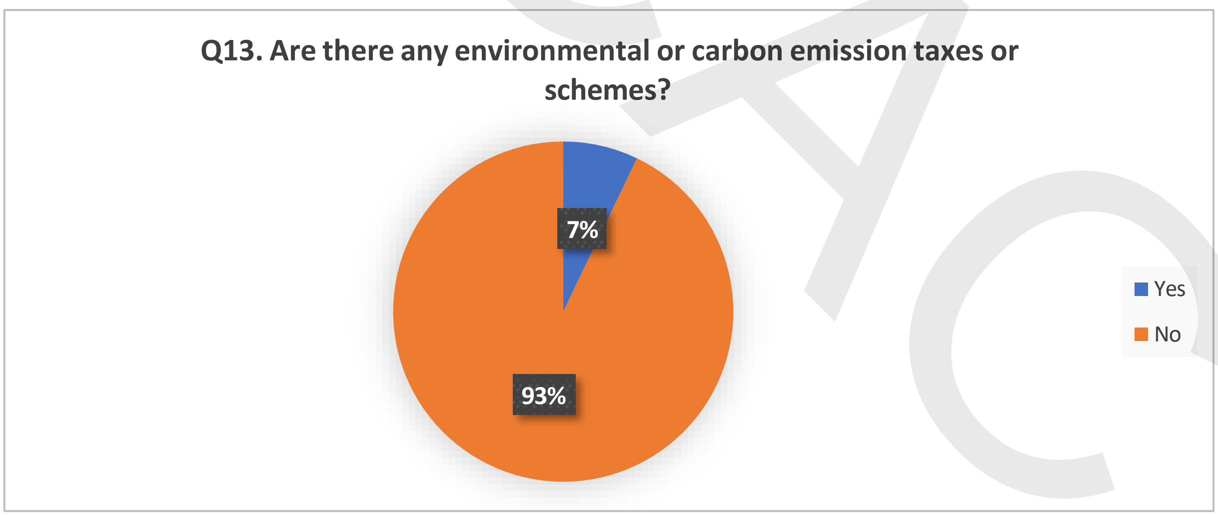


Figure 78 Environmental or carbon emission taxes or schemes

Question 13, Figure 78, enquires about the presence of environmental or carbon emission taxes or schemes, the data reveals the following insights:

- 93% of respondents indicated that there are no environmental or carbon emission taxes or schemes in place within their jurisdiction. This suggests that the majority of regions covered in this survey do not impose environmental taxes or participate in carbon emission reduction schemes, which could indicate a lack of formal regulatory frameworks addressing aviation's environmental impact in these areas.

- 7% of respondents reported the existence of such taxes or schemes. Specifically, these respondents referred to an Emissions Trading System (ETS) and a green tax. These mechanisms are designed to limit carbon emissions by either imposing direct taxes on emissions or by allowing companies to trade emission allowances in a regulated market.

Question 14.

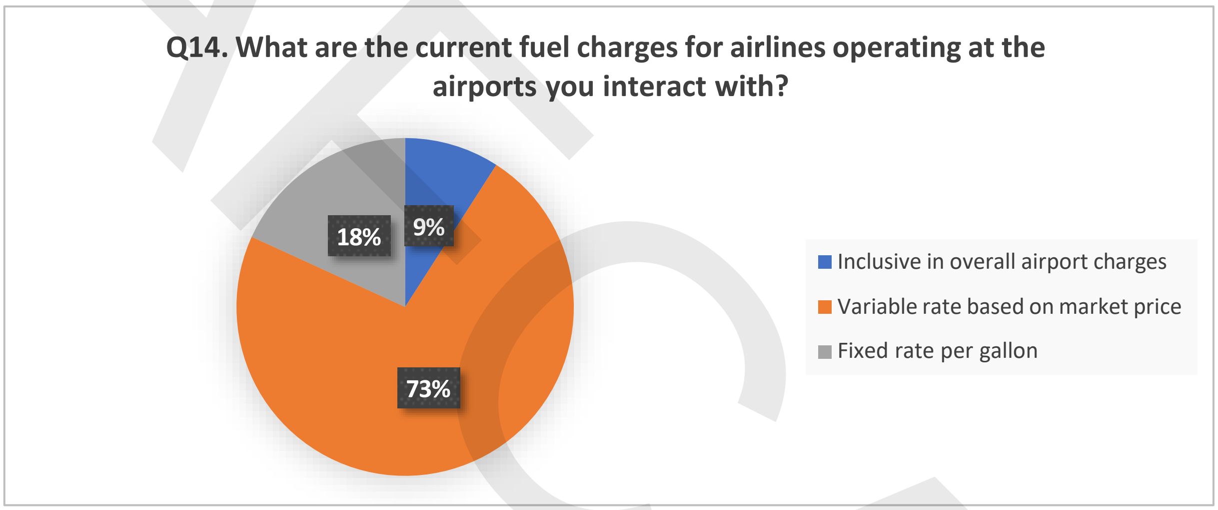


Figure 79 Current fuel charges for airlines operating at the airports concerned

Question 14, Figure 79, enquires about the current fuel charges for airlines operating at the airports respondents interact with, the results reveal the following insights:

- 73% of respondents indicated that fuel charges are based on a variable rate tied to the market price. This indicates that the majority of airports or regions have fuel pricing that fluctuates according to global or regional market conditions, reflecting the volatile nature of fuel costs in the aviation industry.
- 18% of respondents reported a fixed rate per gallon for aviation fuel, suggesting that some regions or airports offer more predictable fuel pricing structures, which can help airlines better manage their operating costs over time.

Only 9% of respondents indicated that fuel charges are inclusive in overall airport charges, showing that in a minority of cases, fuel costs are bundled into the general operating fees charged by airports.

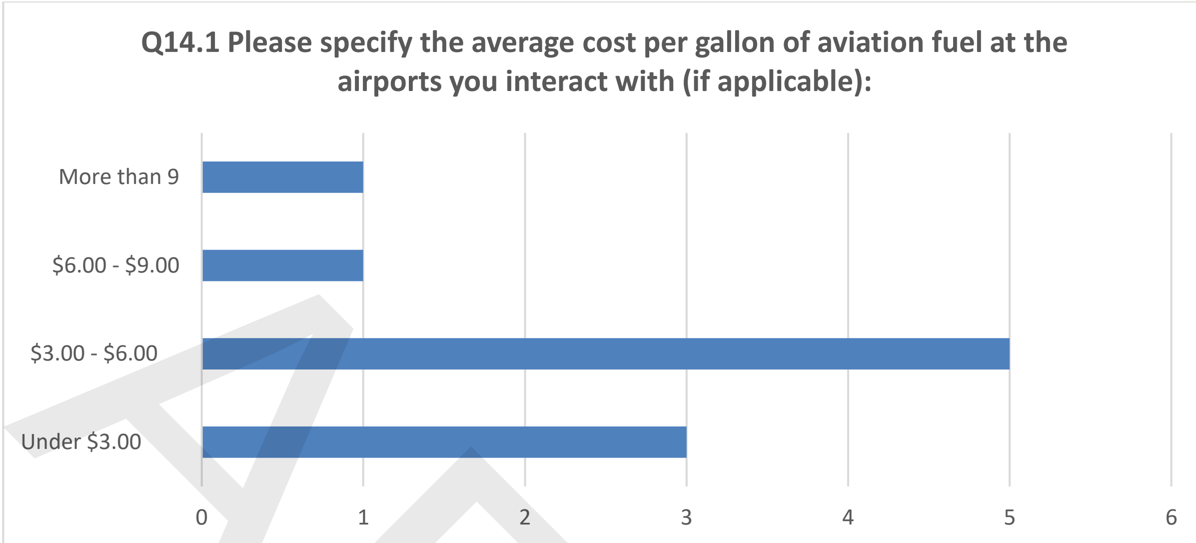


Figure 80 The average cost per gallon of aviation fuel at the concerned airports

In Q14.1, Figure 80, which asks respondents to specify the average cost per gallon of aviation fuel at the airports they interact with:

- The most common price range, reported by the majority of respondents, is between USD 3.00 and USD 6.00 per gallon, reflecting relatively standard pricing in many regions.
- A small portion of respondents indicated that prices are either under USD3.00 per gallon or between USD 6.00 and USD 9.00, highlighting regional variations in fuel pricing.

A minority indicated prices above USD 9.00 per gallon, which could reflect higher fuel costs in specific airports or regions due to local economic factors, taxes, or infrastructure limitations.

Question 15

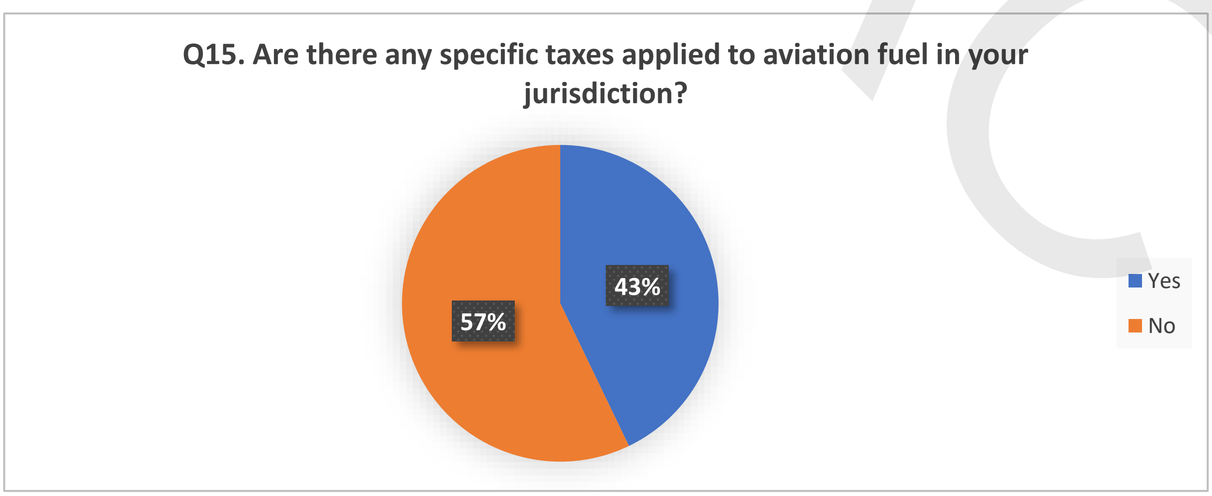


Figure 81 Specific taxes applied to aviation fuel

For Q15, Figure 81, which examines whether specific taxes are applied to aviation fuel in respondents' jurisdictions, the results show the following:

- 57% of respondents indicated that no specific taxes are applied to aviation fuel in their jurisdictions, suggesting that in the majority of regions, aviation fuel is either exempt from taxation or subject to minimal taxation, possibly as a measure to support the aviation industry by reducing operational costs.
- 43% of respondents reported that there are specific taxes applied to aviation fuel, highlighting the fact that certain regions impose additional costs on fuel, which could affect overall airline operating expenses.

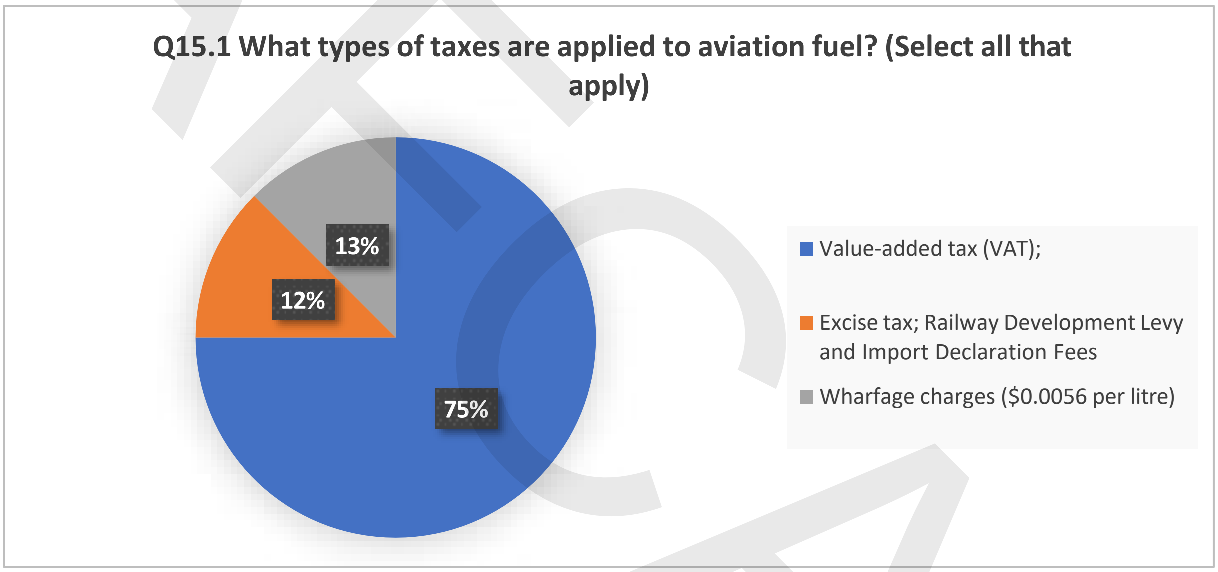


Figure 82 Types of taxes applied to aviation fuel

While a majority of jurisdictions exempt aviation fuel from specific taxes, a significant portion imposes taxation, with VAT being the most prevalent (75%). In some cases, additional charges such as excise taxes, development levies, and wharfage fees (12%) are also applied, contributing to the cost structure of aviation fuel in these regions. These taxes could impact operational costs for airlines, especially in regions where multiple types of taxes are levied on fuel.

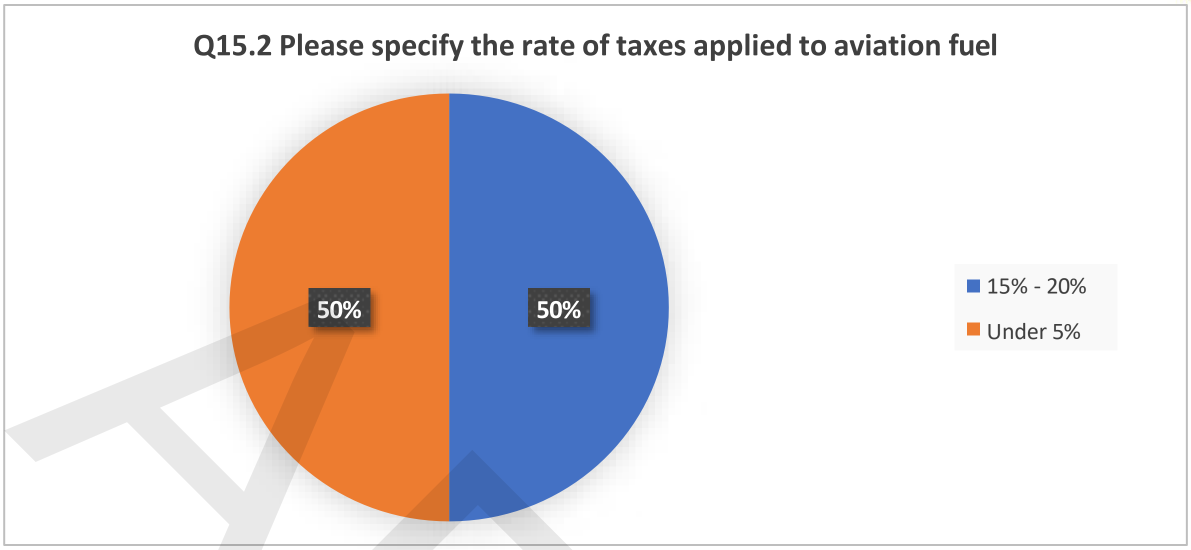


Figure 83 The rate of taxes applied to aviation fuel

The data reveals in Q15.2, Figure 83, a stark contrast in the taxation of aviation fuel across different regions. In half of the jurisdictions, aviation fuel is heavily taxed at rates between 15% and 20%, which could contribute to higher operational costs for airlines in these areas. In contrast, the other half of respondents' report tax rates below **5%**, indicating that these regions may be more lenient in taxing aviation fuel, possibly to encourage the growth and sustainability of their aviation industries by keeping fuel costs low. This disparity highlights regional differences in taxation policies and their potential implications for the global aviation sector.

Question 16.

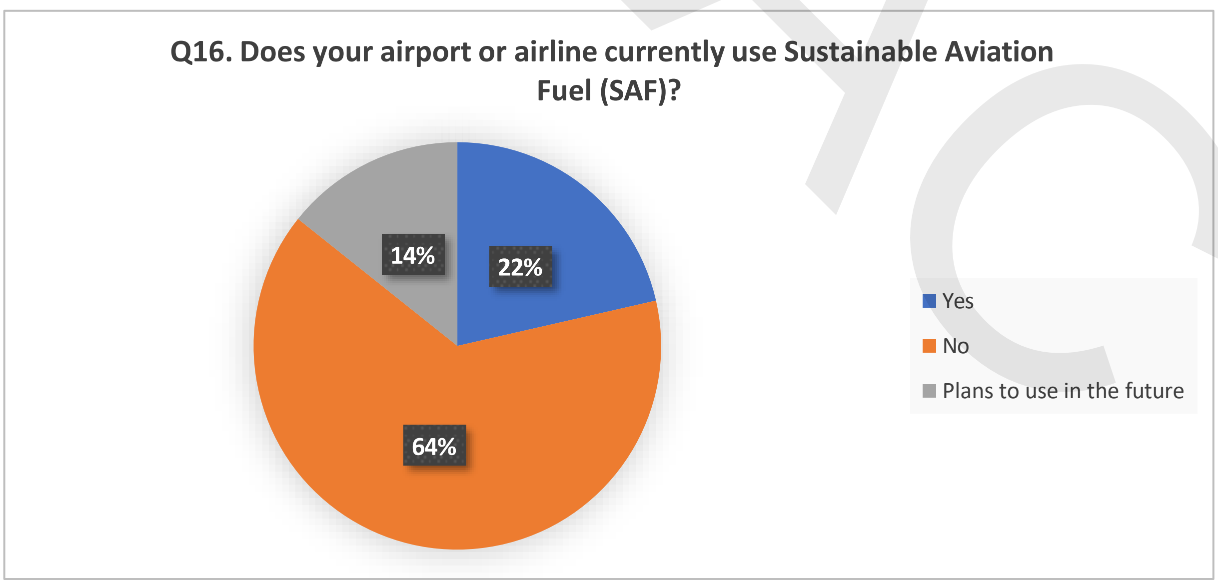


Figure 84 The use of SAF

The majority of respondents have not yet adopted Sustainable Aviation Fuel (65%), which points to a significant gap in the industry's current sustainability practices, according to Question 16, Figure 84. However, with 14% of respondents planning to use SAF in the future and 22% already using it, there is evidence of increasing awareness and gradual shifts towards sustainability in aviation. This trend highlights the ongoing but slow-paced transition towards greener operations within the industry, likely driven by long-term environmental goals and global commitments to reduce carbon emissions.

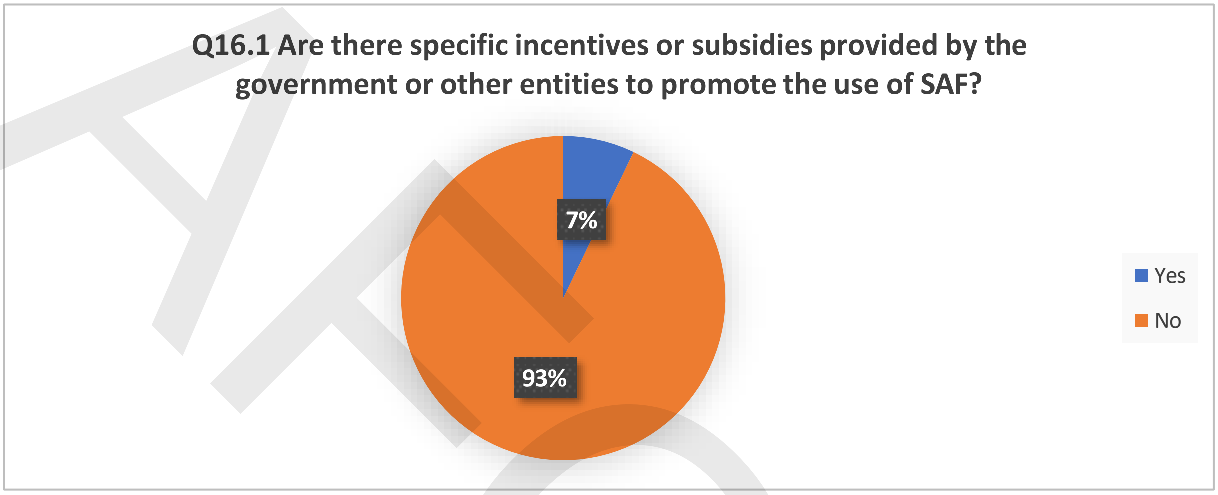


Figure 85 Specific incentives or subsidies provided by the government or other entities to promote the use of SAF

According to Question 16.1, Figure 85, the overwhelming majority of jurisdictions do not currently provide incentives or subsidies to promote the use of SAF (93%), which could slow down the transition to more sustainable fuel options within the aviation industry. The lack of governmental support may reflect broader budgetary constraints or the prioritisation of other initiatives.

However, Egypt (representing 7% of the respondents) is the only region offering financial support representing early movers in the global push toward sustainability, potentially setting an example for future policies aimed at reducing the environmental impact of aviation through the promotion of SAF.

Findings

The Questionnaire aimed to gather insights on various aspects of aviation taxes, charges, fees and fuel-related practices across different jurisdictions, providing a comprehensive view of the current landscape of aviation economics and environmental policies.

The findings reveal a diversity of practices and regulatory environments across respondents' jurisdictions. For instance, in terms of taxes on aviation fuel, there is a nearly even split between regions that impose taxes and those that do not (Figure 81). VAT is the most commonly applied tax on fuel, while some regions also impose additional charges, such as excise taxes or wharfage fees (Figure 82). Furthermore, the rates of taxation on aviation fuel vary significantly, with half of the respondents indicating rates between 15% and 20%, while the other half reported rates below 5% (Figure 83).

With respect to environmental initiatives, there is limited adoption of policies such as carbon emission taxes or Sustainable Aviation Fuel (SAF) usage. Most jurisdictions do not impose environmental taxes (Figure 78), and only a small minority have begun using SAF (Figure 84). Despite some respondents indicating plans to adopt SAF in the future (Figure 84), there is a lack of governmental incentives or subsidies for wider adoption, as indicated by 93% of respondents (Figure 85).

The fuel pricing structures across airports are also varied, with most respondents indicating that fuel charges are determined by market-based variable rates (Figure 79). However, fixed-rate fuel pricing is also present in some regions, offering predictability for airlines operating in those areas. The average cost of fuel reported by respondents varied, with most indicating a price range of USD 3.00 to USD 6.00 per gallon (Figure 80).

Additionally, respondents provided the percentage of airport charges included in the overall passenger airfare, showing that these fees often make up a significant portion of ticket prices, particularly in airports with high infrastructure costs or regulatory burdens (Figure 61).

An essential factor in achieving a higher response rate was the use of both digital and physical versions of the Questionnaire. This dual approach allowed respondents to participate according to their preferences or availability, which greatly contributed to the overall success of data collection and provided a broader representation of views from various regions.

The findings from the Questionnaire highlight the complexity and diversity of taxation, fee structures, and environmental practices within the aviation industry. While most regions apply a variety of taxes and fees to passengers and airlines, there are significant regional differences in how these costs are structured and applied. Fuel pricing and environmental initiatives remain critical areas of focus, with challenges such as variable market rates and the slow adoption of SAF. These results underscore the need for continued collaboration and policy development to harmonise taxation and fee structures across regions.

Legal Analysis

This legal analysis subchapter provides a comprehensive review of the legal frameworks governing aviation taxes, charges, and levies across the 20 states as part of the Single African Air Transport Market Pilot Implementation Project. This analysis aims to examine the regulatory structures, enforcement mechanisms, and compliance levels of countries within the African aviation market. By doing so, it sheds light on the complexities and challenges inherent in the current landscape, as well as the varying degrees of alignment with international standards, such as those set by the International Civil Aviation Organisation.

Each country is individually assessed to provide insights into the legal system's foundation, the applicable regulatory authorities, and the specific laws relevant to aviation taxes and charges, as additional information will be provided in Appendix A. The analysis also analyses tariff structures, economic regulation, and any jurisdictional challenges that may impact foreign- registered aircraft. Furthermore, future legal considerations and ongoing developments will be highlighted to provide a complete picture of the regulatory environment in each state.

This structured approach will help identify opportunities for harmonising aviation tax policies across Africa, thereby supporting the operationalisation of the Single African Air Transport Market ("SAATM") and fostering a more integrated and competitive aviation sector. The findings of this analysis will be instrumental in shaping policy recommendations aimed at enhancing regulatory consistency and reducing barriers to intra-African air transport.

Cabo Verde

Cabo Verde features a well-established aviation network, considering its island geography. The primary airports include Amílcar Cabral International Airport (Sal Island), Cesária Évora Airport (São Vicente), and Boa Vista International Airport, which serve domestic, international, and tourism demands. Cabo Verde Airlines is the major regional carrier, complemented by smaller airlines for inter-island travel. Investments in airport modernisation and air traffic management infrastructure demonstrate Cabo Verde's commitment to improving aviation services.

Taxes and Fees

Cabo Verde's aviation sector involves several specific taxes and fees that impact airline operations:

1. **Landing Charges:** Landing fees are based on the aircraft's Maximum Take-off Weight ("MTOW") as recorded in the Certificate of Airworthiness. The fee at Amílcar Cabral International Airport is set at 741 Cape Verdean Escudo ("CVE") per tonne for domestic flights and 8.14 Euros ("EUR") per tonne for international flights. Parking is complimentary for the first 60 minutes, after which charges of 0.11 EUR per tonne per hour are applicable. Additionally, there is a lighting fee of 9,879 CVE for each landing or take-off (domestic flights) and a lighting fee of 108.37 EUR for International landings and take-off.

2. **Passenger Service Charges**: For entering and departing international flights, the passenger service charge is 19.09 EUR. For international-to-international transfers via Cabo Verde, the passenger service charge is 3.8 EUR. A transfer from an international to a domestic flight will accumulate a 3.68 EUR charge. For domestic flights, the passenger service charge is 630 CVE per origin and destination of the embarking passenger. Whereas the passenger service charge for domestic-to-domestic transfers within Cabo Verde is 315 CVE per passenger. Domestic to international flights are charged 325 CVE per passenger. Infants under 2 years of age, and

passengers on flights performed for the Cabo Verde government or any other government are exempt from passenger service charges.

3. **Security Charges**: A security fee is added to each ticket, amounting to 150 CVE for domestic flights and 3,400 CVE for international flights. Infants below the age of 2 years old and holders of Cape Verdean passports are exempt from this type of charge.
4. **Cargo Charges**: Cargo fees are based on whether the consignments are cleared at embarkation or disembarkation, with rates set at 0.2 EUR per kg for embarkation and disembarkation. There is an 80% reduction of this fee for aircraft or air carriers who are engaged in local test flights and those of national carriers used in flights for instruction and/or training.
5. **Air Navigation Fees**: These fees are calculated based on MTOW and include both terminal and en-route charges. Terminal charges range from 2,500 CVE for aircraft up to 10 tonnes, and up to 20,000 CVE for aircraft exceeding 129 tonnes. En-route charges are determined by multiplying a flight coefficient by a unit rate of 2,300 CVE, with coefficients varying depending on the aircraft's weight and distance flown within the Sal Oceanic Flight Information Region.
6. **Airport fuel Fee**: The airport fuel fee is 0.682 EUR and is calculated by measuring the unit rate per cubic meter.

These taxes and fees are established by the Civil Aeronautics Agency and the National Company of Airports and Air Security. These regulations reflect national regulations and international standards like those from the International Civil Aviation Organisation. While the fee structure is designed to recover costs and maintain regulatory compliance, the purely cost-based approach has been criticized for potentially discouraging efficiency gains by airport operators.

Cameroon

Cameroon has a well-developed aviation network with several operational airports that facilitate both international and domestic flights. The main airports include Douala International Airport, Yaoundé Nsimalen International Airport, and regional airports such as Garoua, Maroua, and Bamenda. The national carrier, Camair-Co, operates both domestic and international routes, while several international airlines connect Cameroon to Europe, the Middle East, and other parts of Africa. The government has prioritised enhancing the aviation infrastructure, positioning Douala as a sub-regional hub and improving overall safety and efficiency within the sector.

Taxes and Fees

Cameroon's aviation sector imposes a variety of taxes and fees across their aerodromes. These fees significantly impact airline operating costs. The following are the key charges from different airports within the country.

1. **Landing Charges**: Landing fees at Douala International Airport are based on the aircraft's MTOW. The charges range from 40 Central African Franc ("FCFA") per tonne for aircraft up to 20 tonnes, to 280 FCFA per tonne for aircraft between 181 and 300 tonnes. Zero to four tonnes incur a fixed charge of 10,700 FCFA and 13,055 FCFA for 5 tonnes. There is a tax for the development of the infrastructure of the airport of 15,000 FCFA which is collected per international passenger for international traffic from Yaoundé/ Douala.
2. **Passenger Security and Development Taxes**: A passenger security fee of 1,000 FCFA is levied per departing passenger for international flights, and 500 FCFA for domestic flights. Security for cargo is charged 2,000 FCFA. Additionally, there is a development tax of 96,554 FCFA per passenger for flights within the Central African Economic and Monetary Community("CEMAC") countries and Nigeria. There is an exemption for airline crew on duty and infants under 2 without a seat.
3. **Parking Charges**: For freight from Cameroon, parking charges are calculated per hour by assessing the maximum take-off weight. This fee is 35 FCFA per tonne per hour (apron) and remotely unoccupied areas are 140 FCFA.
4. **Safety and Electricity Charges**: Safety-related fees include a charge of 500 FCFA (domestic) and 10,000 FCFA for international carriage per departing passenger. Cargo is charged at 2,000 FCFA. A flat-rate electricity fee of 500 FCFA applies for every 24 hours of usage.]
5. **Passenger Service Charges:** For domestic flights, the passenger service charge is 500 FCFA per origin and destination of the embarking passenger. Whereas the passenger service charge to Economic Community of Western African States is 6,000 FCFA. Infants under 2 years of age and airline crew on duty are exempt from this charge.

These taxes and fees are regulated by Cameroon's Civil Aviation Authority and are intended to cover the costs associated with airport operations and infrastructure development. The fee structure follows a "single-till" model, where the revenue generated from aeronautical and non- aeronautical sources is combined to support airport services. This model aims to ensure that costs are distributed fairly, though it can create challenges in balancing financial sustainability and competitiveness.

Central African Republic

The Central African Republic has developed a modest aviation network that plays a crucial role in maintaining connectivity and supporting economic activities. The primary airport is Bangui M'Poko International Airport, which handles the majority of international and significant domestic flights. Regional airports such as Berbérati and Bambari help ease local and regional connectivity, serving as important hubs for domestic travel and providing access to remote areas within the country.

Taxes and Fees

The Central African Republic imposes a range of taxes and fees on aviation activities, impacting both domestic and international flights:

1. **Landing Charges:** Landing charges at Bangui/M'Poko International Airport are determined based on the aircraft's MTOW. For international traffic, charges are set at 3,181 FCFA per tonne for the first 25 tonnes, 6,359 FCFA per tonne from the 26th to 75th tonne, and 8,954 FCFA for weights over 150 tonnes. For domestic flights, the charges are 711 FCFA per tonne for the first 14 tonnes, with increasing rates for higher weights.
2. **Lighting Charges**: Lighting charges for up to 75 tonnes incur a fixed charged of 131.5 EUR. An excess of 75 tonnes will be charged 166.57 EUR.
3. **Parking and Hangar Charges**: Parking charges are 60 FCFA per tonne per hour. The first hour is free, both on the apron and in designated parking areas. Hangar accommodation costs 20 FCFA per tonne for commercial aircraft and 7 FCFA per tonne for tourist aircraft.
4. **Passenger Service Charges**: A passenger service fee of 2,000 FCFA is applied for domestic departures, 15,000 FCFA for departures to member states of the Customs and Economic Union of Central Africa, and 20,000 FCFA for other international destinations.
5. **Security and Cargo Charges**: Security fees amount to 1,500 FCFA per passenger for international flights and 1,000 FCFA for countries within CEMAC. Cargo charges are 20 FCFA per kilogram for cargo processed through Bangui/M'Poko International Airport.
6. **Fuel Costs**: Fuel costs are set at 7 FCFA per litre for both AVGAS and Jet A1 fuel.
7. **Aeronautical Infrastructure Development Charges**: These charges are 5,000 FCFA for international flights and 3,000 FCFA for domestic flights.
8. **Air Navigation Charges**: For air navigation services, the fees are 211.69 EUR for international flights and 88.14 EUR for national flights, with rates for MTOW above 14 tonnes aligned with Senegal's fee categories.

These taxes and fees are overseen by the Central African Republic National Civil Aviation Authority in collaboration with the Ministry of Transport and Civil Aviation. The regulatory framework is designed to ensure the safety, security, and efficiency of the aviation sector while also generating revenue to support airport infrastructure and services.

Congo Republic

The Republic of Congo has a developing aviation sector, supported by several key airports and a national carrier[19]. The main international gateway is Maya-Maya International Airport in Brazzaville, which handles significant passenger and cargo traffic. Pointe Noire Airport plays a vital role, for domestic flights and the oil industry, while other smaller airports contribute to regional connectivity. The national airline, Equatorial Congo Airlines, connects the Republic of Congo to various international destinations, enhancing connectivity to Africa, Europe, and other parts of the world.

Taxes and Fees

The aviation sector in the Republic of Congo imposes a range of taxes and fees, which are regulated by the Agence Nationale de l'Aviation Civile, the central regulatory authority for civil aviation. These regulations reflect the World Trade Organisation agreements in trade by civil aviation. The following key taxes and charges apply:

1. **Landing Charges**: Landing fees are calculated based on the MTOW of the aircraft. For international traffic, the fees start at 2,087 per tonne Congolese Franc ("**XAF**") for the first 25 tonnes, increasing to 4,192 Xaf for the next weight category, and reaching 5,877 XAF for aircraft exceeding 150 tonnes. For domestic traffic, landing fees start at 394 XAF per tonne for the first 14 tonnes, increasing to 3,752 XAF for larger aircraft.
2. **Lighting Charges**: Lighting fees are 131,5 EUR for aircraft over 75 tonnes, while low-intensity lighting below 75 tonnes costs 166.57 EUR. These charges are intended to cover the operational costs of lighting services during night operations or adverse weather conditions.
3. **Parking and Hangar Charges**: Parking charges start at 142 XAF per tonne per hour after the first two hours, which are free. Hangar accommodation costs 142 XAF per tonne for commercial aircraft. This fee structure is designed to incentivise quick turnaround times and minimize congestion at the airports.
4. **Passenger Service Charges**: For domestic flights, a passenger service fee of 4,500 XAF is applied, while international passengers are charged 36,650 XAF. Regional departures within CEMAC, the Democratic Republic of Congo and Angola are 25,562 XAF. These charges assist in funding airport infrastructure and passenger services, contributing to improved facilities and amenities. There exists an exemption for the following categories of people: those on duty or deadheading crew members of the plane; passengers on direct transit exclusively performing a temporary stop at this airport and departing in the same plane and the same flight number;

[19] National Agency of the Civil Aviation of Congo

passengers whose aircraft performs a landing back to the airport as a result of technical problem related to adverse weather conditions.

5. **Security and Cargo Charges**: These fees help ensure the safety and security of passengers, cargo, and airport facilities. Security charges are 1,500 XAF for domestic departures, 10,000 XAF for international flights and 5,000 XAF for regional departures. Cargo charges are 36 XAF per kilogram for domestic traffic and 47 XAF per kilogram for international traffic.

   These taxes and fees are set within a single-till model, where revenues from aeronautical and non-aeronautical sources are combined to support airport operations. The fee structure aims to maintain financial sustainability and support infrastructure development.

Côte d'Ivoire

Côte d'Ivoire has a robust aviation network supported by key airports and a national airline, Air Côte d'Ivoire. The primary gateway is Felix Houphouet Boigny International Airport in Abidjan, handling significant passenger and cargo traffic, while Bouaké and Yamoussoukro airports serve domestic and regional needs. Air Côte d'Ivoire has recovered from previous setbacks and achieved financial stability, playing a vital role in connecting the country to other regions and enhancing the country's economic integration.

Taxes and Fees

Within the African continent, air navigation service charges lack a uniform policy. Individual countries establish their own pricing structures, resulting in a diverse landscape of fees for airlines. The sole exception lies with the Agency for Air Safety in Africa and Madagascar ("**Asenca**"). This Intergovernmental Organisation implements a standardised formula for calculating charges within its member states. Côte d'Ivoire is one of the 17 member countries benefiting from this consistent approach across the western and central African regions, extending to specific Indian Ocean territories. This differs from the varied pricing structures that are favoured across much of the rest of Africa.

The Asenca formula for calculating air navigation service charges utilises a unit cost directly proportional to the aircraft weight. This unit cost is then multiplied by a rate factor that varies depending on the flight category.

See example below:

Example: Calculating Air Navigation Service Charges Using the Asenca Formula

Charge = Unit Cost × Weight Factor × Rate Factor
- Unit Cost: A base amount charged per weight unit (e.g., USD 1.00)
- Weight Factor: Usually proportional to the aircraft's Maximum Take-Off Weight (MTOW)
- Rate Factor: Adjusted depending on the flight category (domestic, regional, international)

Example Scenario

• Aircraft: Boeing 737
• MTOW: 70,000 kg
• Unit Cost: USD 1.00
• Weight Factor Formula: √ (MTOW / 50)
• Flight Category: Regional
• Rate Factor: 1.2 (for regional flights)

Step-by-Step Calculation

1. Weight Factor = √ (70,000 / 50) = √1,400 ≈ 37.42
2. Charge = USD 1.00 × 37.42 × 1.2 = USD 44.90

Therefore, the air navigation charge for this flight would be approximately USD 44.90.

Ethiopia

Ethiopia has a well-established aviation network that is crucial to its connectivity both regionally and internationally. The main international hub is Addis Ababa Bole International Airport, one of Africa's busiest and a critical gateway for Ethiopian Airlines, the national carrier. Bole International Airport handles significant passenger and cargo traffic, enhancing Ethiopia's strategic role as a transit hub between Africa and other continents. In addition to Bole, other key airports, such as Bahir Dar and Mekele airports, provide essential domestic connectivity, supporting tourism and economic activities. Ethiopian Airlines remains the primary driver of aviation growth in Ethiopia, connecting the country to Europe, Asia, and the Americas, and playing a pivotal role in regional connectivity across Africa.

Taxes and Fees

The aviation sector in Ethiopia imposes various taxes and fees, structured to cover airport services, regulatory compliance, and infrastructure development. These charges are regulated by the Ethiopian Civil Aviation Authority and apply to both domestic and international operations.

1. **Landing Charges**: Landing charges at major airports in Ethiopia are based on the MTOW of the aircraft. For an aircraft up to 5,000 lbs, the fee is 5.86 USD. The fee for an aircraft weighing between 5,001 and 40,000 lbs, is 1.75 USD per 1,000 lbs, while aircraft over 40,000 lbs are charged 2.64 USD per 1,000 lbs. Lighting charges, which are required for night or low-visibility landings, are set at 50% of the landing fee, with a minimum of 48.78 USD and a 10 % discount will apply between 25-50 flights. Over 50 flights per week will receive a 20% reduction.
2. **Parking and Hangar Charges**: Parking charges do not apply during the first three hours. They subsequently become applicable at the rate of 0.0012 USD per square foot for each 24-hour period. Hangar charges at Addis Ababa airport vary by aircraft size, large aircraft are charged at a rate of 20 Ethiopian Burs ("**ETB**") and smaller aircraft 7.50 ETB per hour.

3. **Passenger Service Charges**: Passenger service fees are set at 30 USD for international departures, 2.50 USD for transit passengers staying between 24 and 48 hours, and 30 ETB for domestic departures. These charges are used to support airport infrastructure and passenger amenities.
4. **Air Navigation Charges**: For international flights, air navigation fees are 16.24 USD per unit, with charges varying depending on aircraft weight and distance. Daily charges for flights operating within Ethiopian airspace start at 2.49 USD for aircraft up to 5,000 lbs and increase to 143.56 USD for aircraft over 300,000 lbs.
5. **Lighting Charges**: Lighting charges for night operations are set at an additional 50% of the landing fee. Discounts are offered for airlines operating frequent services, with reductions ranging from 10% for 15-30 flights per week, to 50% for more than 50 flights weekly.
6. **Terminal Facility Charges**: For international flights utilising boarding bridges, a charge of 85.37 USD is levied for up to two hours of use. Remote parking is charged 42,69 USD and domestic remote parking is charged 17,07 USD. This fee helps to cover the costs associated with maintaining terminal infrastructure and service.

Ethiopia's aviation charges and taxes are designed to ensure that operational costs are covered while supporting infrastructure development and regulatory compliance. However, the relatively high cost of these services may pose challenges to further expanding the aviation market. The Ethiopian Civil Aviation Authority's adherence to international conventions, such as the Chicago and Montreal Conventions, assist in maintaining alignment with global standards, supporting safety, security, and efficiency in the aviation sector.

Gabon

Gabon has a moderately developed aviation network, anchored by key airports such as Libreville Léon M'Ba International Airport, which serves as the main international gateway, and Port-Gentil and Franceville Mvengue Airports, which play significant roles in domestic and regional connectivity. The national carrier, Gabon Airlines, facilitates both international and domestic air travel, while a number of global airlines operate flights to Gabon, connecting the country to Africa, Europe, and other regions. The recent launch of Fly Air Gabon Holding, a state-owned entity, signals Gabon's intention to expand its aviation influence across the continent, although transparency and government involvement pose potential challenges.

Taxes and Fees

Gabon imposes various taxes and fees to support its aviation infrastructure, overseen by the Agence Nationale de l'Aviation Civile. These charges are applicable to both domestic and international aviation activities, influencing the cost of airline operations in the country.

1. **Landing Charges**: Landing charges at Libreville Léon M'Ba are determined by the aircraft's MTOW. For international flights, landing fees are 1,004 XAF per tonne for the first 25 tonnes, increasing to 2,645 XAF per tonne for aircraft exceeding 150 tonnes.
2. **Lighting Charges**: High-intensity lighting charges apply at Libreville Léon M'Ba, costing 166,57 XAF per flight for aircraft over 75 tonnes, while low-intensity lighting costs are 38,716 XAF.
3. **Parking Charges:** Parking charges start at 35 XAF per tonne per hour at Libreville Léon M'Ba, for international flights, while domestic the domestic parking charge is 23 XAF. These fees are designed to manage airport congestion and encourage efficient use of airport facilities.
4. **Airport Infrastructure Improvement Charges**: Libreville Léon M'Ba imposes specific infrastructure improvement charges based on an aircraft's MTOW, with rates beginning at 156 XAF per tonne for domestic flights and 688 XAF per tonne for international flights, inclusive of Value Added Tax These fees support the continued development of airport facilities to improve passenger experience and operational efficiency.
5. **Passenger Service Charges**: Passenger service charges at Libreville Léon M'Ba vary depending on the type of flight. Domestic flights are charged 2,180 XAF, 11,000 XAF for regional flights, and 21,000 XAF for international flights.
6. **Security Charges**: Gabon levies additional security charges of 3,000 XAF for domestic flights. Regional departures to countries within CEMAC are charged 7,000 XAF and international departures 10,000 XAF. Infants under the age of 2 years and airline crew on duty are exempt from this charge.

These aviation-related taxes and fees are part of Gabon's effort to maintain and expand its aviation infrastructure. While these fees help sustain airport operations and infrastructure, their relatively high cost may hinder the competitiveness of Gabon's aviation sector and pose challenges for attracting more international airlines.

Gambia

Gambia has a relatively small but crucial aviation network, with Banjul International Airport serving as the main international gateway. The airport handles a significant portion of the country's passenger and cargo traffic, connecting Gambia to various international destinations, especially within West Africa and Europe. Several smaller airports help facilitate domestic and regional connectivity, playing a role in supporting economic activities and tourism. The national carrier, Gambia International Airlines, plays a pivotal role in connecting the country with neighbouring regions. The government is also taking steps to transform its aviation infrastructure by establishing a new Airport Management Company, which is envisioned to operate under a Public-Private Partnership structure. This shift aims to leverage private sector expertise to improve efficiency and modernise airport operations.

Taxes and Fees

The aviation sector in Gambia is subject to several taxes and fees, structured to cover operational costs, regulatory compliance, and infrastructure development. These charges apply to both domestic and international operations and are overseen by the Gambian Civil Aviation Authority.

1. **Landing Charges**: Landing charges at Banjul International Airport are based on the MTOW of the aircraft. The charges start at 3.00 Great British Pounds ("**GBP**") per tonne for aircraft weighing up to 24.99 tonnes, increasing to 7.00 GBP per tonne for aircraft over 100 tonnes. These fees help cover the costs of using airport facilities and services, including air traffic control and maintenance.
2. **Lighting Charges**: Lighting charges are calculated as a percentage of the landing fees, set at 40% of the landing charge. These charges cover the costs of lighting services required during nighttime or low-visibility landings.
3. **Parking Charges**: Parking is free for the first six hours at Banjul International Airport, after which a fee of 0.60 GBP per tonne per hour is applied. This structure aims to incentivise quick turnaround times and ensure efficient use of airport space.
4. **Passenger Service Charges**: Passenger charges include a 10.00 GBP service fee for all departures. These charges are used to support airport services, improve passenger facilities, and maintain security infrastructure.

The regulatory framework for the aviation sector in Gambia aims to balance operational costs with revenue generation to sustain airport infrastructure and improve service quality. The establishment of the Airport Management Company under a Public Private Partnership model is expected to enhance efficiency, attract private investments, and contribute to the modernisation of Gambia's aviation facilities, making it more competitive regionally.

Kenya

Kenya has a robust aviation network supported by several key airports and a national carrier, Kenya Airways, which plays a critical role in regional and international connectivity. The main international gateways are Eldoret International Airport and Jomo Kenyatta International Airport ("JKIA") in Nairobi, which handle significant passenger and cargo traffic. Moi International Airport in Mombasa, Kisumu International Airport and Garissa Airport, play vital roles in supporting both domestic and regional traffic. Kenya Airways connects Kenya to various international destinations, establishing it as a major player in East African air travel and beyond.

Taxes and Fees

The aviation sector in Kenya is subject to a range of taxes and fees that impact both domestic and international operations. These charges are regulated by the Kenya Civil Aviation Authority aiming to fund infrastructure development, regulatory compliance, and operational costs:

1. **Landing Charges**: Landing charges at Nairobi's JKIA and Mombasa's Moi International Airport are based on the aircraft's MTOW. For larger aircraft exceeding 300,000 kg, the fee is up to 1,750 USD at Class I & II aerodromes, while Class III aerodromes have lower charges, with rates up to 45 USD for similar weights.
2. **Parking Charges**: Parking fees are free for the first six hours at major airports, after which charges apply, ranging from 0.60 to 130 USD per tonne per day, depending on the weight of the aircraft. This fee structure is intended to promote the efficient use of airport parking facilities and to discourage long-term parking.
3. **Passenger Service Charges**: Passenger service charges at Garissa Airport are 600 Kenyan Shillings ("**KES**") for domestic departures. These charges help to maintain and improve passenger services and facilities at the airports.
4. **Fuel Charges**: Jet A1 fuel is charged at 350 KES per cubic meter per at major airports, contributing to the operational costs associated with fuel supply and storage infrastructure.
5. **Air Bridge Charges**: Air bridge less than 180 tonnes are charged 75 USD and weight exceeding 180 tonnes 100 USD per hour or part thereof.

   The regulatory framework for aviation in Kenya is overseen by the Kenya Civil Aviation Authority, which is responsible for safety, security, economic regulation, licensing, and oversight of the aviation industry. The various charges and fees are designed to ensure the sustainability of airport operations while supporting infrastructure development.

Morocco

Morocco has a well-established aviation network supported by several major airports and a national carrier, Royal Air Maroc, which plays a key role in regional and international connectivity. The main international hub is Mohammed V International Airport in Casablanca, which handles significant passenger and cargo traffic. Other major airports include Marrakech Menara Airport and Rabat-Salé Airport, which support both domestic and international travel. Morocco's strategic location has made it a key transit hub between Europe and Africa, and the government is actively promoting the country as an aviation and aerospace manufacturing hub.

Taxes and Fees

The aviation sector in Morocco is subject to various taxes and fees aimed at supporting airport services, infrastructure development, and regulatory compliance. These charges are overseen by the National Office of Airports and the Directorate General of Civil Aviation:

1. **Landing Charges**: Landing charges at Mohammed V International Airport are determined based on the MTOW of the aircraft. For international flights, the charges range from 42 Moroccan Durham ("**MAD**") per tonne up to 25 tonnes and from 160 MAD per tonne for aircraft exceeding 200 tonnes. Domestic flights have lower rates, starting at 14.40 MAD per tonne.
2. **Lighting Charges**: Lighting charges vary depending on the airport and the intensity of the lighting required. At Casablanca, high-intensity lighting charges are 781 MAD per international flight, while domestic flights have rates of 488 MAD.
3. **Parking Charges**: Parking fees at Casablanca start at 3.47 MAD per tonne per hour after the first free hour. At other airports, the parking fee is 12.40 MAD per tonne per hour for aircraft up to 50 tonnes and 7.20 MAD per tonne per hour for aircraft over 50 tonnes. Unlike Casablanca the first 3 hours of parking at airports in Morrocco are free.
4. **Passenger Service Charges**: Passenger service fees for departures at Casablanca are 29 MAD for domestic flights and 134 MAD for international flights to Africa and Europe.
5. **Security charges**: Security charges are 48 MAD for international flights and 30 MAD for domestic flights.

The civil aviation regulatory framework in Morocco, aims to ensure safety, security, and economic regulation within the aviation sector. Morocco is positioning itself as a major player in the global aviation industry by attracting major aircraft manufacturers such as Boeing and Airbus to set up operations.

Mozambique

Mozambique has a developing aviation network with several key airports that facilitate both domestic and international air travel. The primary international gateway is Maputo International Airport, which handles significant passenger and cargo traffic. Airports, such as Beira and Nampula, contribute in supporting tourism and regional connectivity. The national carrier, Linhas Aéreas de Moçambique, connects Mozambique to numerous international destinations, including Africa, Europe, Asia, and the Americas. Mozambique's air traffic has shown a positive upward trend, surpassing pre-pandemic levels, which indicates a recovery and growth trajectory for the aviation industry.

Taxes and Fees

Mozambique imposes several aviation-related taxes and fees, regulated by the Civil Aviation Institute of Mozambique. These fees are structured to support operational and regulatory costs and apply to both domestic and international activities:

1. **Landing Charges**: Landing charges at major airports are based on the aircraft's MTOW. For MTOW up to 2,000 kg, the fee is 11.50 USD, increasing to16 USD for MTOW between 4,001 and 5,700 kg For MTOW above 5,700 kg, the charge is 3.50 USD per tonne. Helicopters pay 50% of the landing charge, with an additional surcharge for operations outside official hours.
2. **Parking Charges**: Parking at Maputo, Beira and Nampula airports is free for the first 90 minutes. Following this, charges are applied based on an aircraft's MTOW, starting at 0.5 USD per 3 hours for the apron and remote parking charged at 0.38 USD
3. **Passenger Service Charges**: Passenger service charges are set at 13 USD for domestic flights and 35 USD for regional and international flights. These charges contribute to airport infrastructure and passenger services.
4. **Air Navigation Charges**: Air navigation charges are based on both the MTOW of the aircraft and the distance flown. Charges range from 15.00 USD for aircraft up to 5,700 kg to 400.00 USD for those over 300,000 kg. A flat rate of 9.60 USD applies for each additional kilometre flown within Mozambican airspace.
5. **Security Charges**: Mozambique levies additional security charges of 12.5 USD for domestic flights. International departures are charged at 12.5 USD Infants under the age of 2 years and airline crew on duty are exempt from this charge.

The regulatory framework for Mozambique's aviation sector aims to balance operational costs with infrastructure development, ensuring the sustainability of airport services. However, the high cost of certain charges could pose challenges to attract more international carriers and expanding the country's aviation market.

Namibia

Namibia's aviation sector is supported by key airports, including Hosea Kutako International Airport in Windhoek, which serves as the main international gateway, handling a significant portion of passenger and cargo traffic. Walvis Bay International Airport also supports both domestic and international flights, playing a crucial role in the country’s economic activities. Eros Airport serves domestic flights and regional connections. While Namibia currently does not have a national carrier, FlyNamibia, formerly FlyWestair, aims to restore short-haul flights previously operated by the now-defunct Air Namibia.

The launch of the "Air Connect Namibia" project, spearheaded by the Namibia Airports Company, is set to enhance the aviation sector by establishing new international air routes, particularly focusing on

Hosea Kutako International Airport. This project aims to boost tourism, trade, and foreign investment by increasing direct air access to Namibia.

Taxes and Fees

The aviation sector in Namibia is subject to various taxes and fees overseen by the Namibia Civil Aviation Authority. These charges include:

1. **Landing Charges**: At major airports, such as Windhoek/Hosea Kutako, Keetmanshoop, and Walvis Bay International, landing charges are based on the MTOW of the aircraft. For international and regional traffic, fees range from 44.8 Namibian Dollars ("**NAD**") for aircraft less than 0.5 tonnes and increases up to 71.4 NAD for aircraft above 10 tonnes.
2. **Parking Charges**: Parking fees for airports in Namibia are exclusive of Value added tax and are calculated as 20% of the landing charge.
3. **Passenger Service Charges**: Passenger service charges are set at 518 NAD for international flights,136 NAD for domestic flights. This charge is not applicable to infants under the age of 2 years (without a seat) and airline crew on duty.
4. **Security Charges**: Namibia levies additional security charges of 56 NAD for domestic flights. Internal departures are charged at 100 NAD. Infants under the age of 2 years (without a seat) and airline crew on duty are exempt from this charge.

The regulatory framework is intended to promote aviation safety, infrastructure development, and operational efficiency. While Namibia is working towards enhancing direct air connectivity through projects like Air Connect Namibia, the current tax structure could present challenges in terms of cost competitiveness for the country's aviation sector.

Niger

Niger's aviation network includes several key airports, with Diori Hamani International Airport in Niamey serving as the main international gateway. Supplementary airports include Zinder and Agadez, which facilitate domestic travel and regional connectivity. Niger Airlines, which has partially filled the gap left by the defunct national carrier Air Niger, offers connectivity to several destinations, providing an important link for both passenger and cargo traffic. The aviation sector faced a setback in February 2024 when a no-fly zone was established between Nigeria and Niger, significantly affecting flight routes and operational costs due to increased flight times and additional fuel requirements.

Taxes and Fees

Niger imposes various taxes and fees on aviation operations, overseen by the National Civil Aviation Agency of Niger. These charges apply to both domestic and international flights and include:

1. **Landing Charges**: Landing charges at Niamey, Agadez, and Zinder airports are based on the aircraft's MTOW. For international traffic, the charges range from 2,616 FCFA per tonne for the first 25 tonnes, increasing to 4,984 FCFA per tonne for aircraft exceeding 150 tonnes.
2. **Lighting Charges**: Lighting charges at Niamey are 131.5 EUR for low -intensity lighting less than 75 tonnes, while high intensity lighting exceeding 75 tonnes incurs a fixed charge 166,57 EUR.
3. **Parking Charges**: Parking is free for the first two hours at all major airports in Niger. Thereafter, parking fees are 50 FCFA per tonne per hour on traffic aprons and 25 FCFA per tonne per hour in other areas. Additional fees are applicable for parking outside official hours at Agadez and Zinder.
4. **Passenger Service Charges**: Passenger service charges are 1,500 FCFA for domestic flights and 10,000 FCFA for international flights.
5. **Security and Cargo Charges**: Security charges are 1,000 FCFA for domestic flights and 5,000 FCFA for international flights. Cargo charges are set at 50 FCFA per kilogram. Cargo charges are levied on goods landing or being shipped from aerodromes within Niger. Fuel is taxed at 2 FCFA per litre.

The aviation regulatory framework in Niger, focuses on maintaining safety, security, and economic efficiency. Despite the operational challenges, the regulatory authorities are committed to improving infrastructure and facilitating the growth of Niger's aviation sector.

Nigeria

Nigeria's aviation sector is one of the most developed in West Africa, featuring a network of major airports and a national carrier. The Murtala Muhammed International Airport in Lagos serves as the main international gateway, handling substantial passenger and cargo traffic. Nnamdi Azikiwe International Airport in Abuja is another significant hub, serving the political and administrative capital. Several airports across the country, such as Port Harcourt International and Mallam Aminu Kano International Airport, support domestic and regional connectivity. The Nigerian government introduced a national carrier, Nigeria Air, although the project is currently suspended due to ongoing concerns regarding ownership structure and transparency.

Taxes and Fees

The aviation sector in Nigeria is subject to various taxes and fees, which impact both domestic and international operations. These charges are overseen by the Nigerian Civil Aviation Authority and include:

1. **Landing Charges**: Landing charges are determined based on the aircraft's Maximum All-Up Weight ("**MAUW**"). For international flights, daytime rates are 0.00909 USD per kg, while night-time

rates are 0.01364 USD per kg, with a 50% surcharge for operations between 18:00 and 06:00 hours. Domestic flights are charged NGN 0.25 per kg during the day and NGN 0.375 per kg at night.

2. **Parking Charges**: Parking fees are based on the weight of the aircraft, with international flights charged USD 0.00114 per kg per hour after the first three hours of free parking. Domestic flights are charged 0.315 Nigerian Nairas ("**NGN**") per kg after the free parking period.
3. **Aerobridge Charges**: Charges for aerobridge usage are 40.00 USD for aircraft under 190,000 kg and 50.00 USD for those over 200,000 kg.
4. **Passenger Service Charges**: Passenger service charges are 100 USD for international flights, international departures to countries within the Economic Community of West African States are 80 USD and 1,000 NGN for domestic flights. The fee is calculated per departing passenger.
5. **Cargo Charges**: Cargo charges for imports and exports are 10.00 NGN per kg. There is also a fuel charge of 2.50 NGN per litre.
6. **Air Navigation Charges**: Air navigation charges include terminal service charges of 199 USD for international flights and 6,000 NGN for domestic flights. En-route charges are 70 USD for international flights, and 2,000 NGN for domestic flights. There is an additional surcharge of 50,000 NGN for services provided outside normal operating hours.

The regulatory framework in Nigeria, which includes the Nigerian Civil Aviation Act of 2022 and various other regulations, aims to ensure the safety, security, and economic regulation of the aviation industry. However, high taxes and charges are often cited as barriers to greater competitiveness and growth in Nigeria's aviation sector.

Rwanda

Rwanda's aviation sector is well-developed, supported by modern infrastructure and a strong national carrier, RwandAir. Kigali International Airport serves as the main international gateway, handling significant passenger and cargo traffic. In addition to Kigali, Huye and Rubavu airports support domestic and regional connectivity, enhancing travel within the country. The country is also making strides to become a regional aviation hub through the development of the Centre of Excellence for Aviation Skills, with funding from the African Development Bank. This new training facility will support pilot training, maintenance, air traffic control, and drone piloting, and is expected to create approximately 1,100 jobs.

Taxes and Fees

Rwanda's aviation sector is subject to various taxes and fees, overseen by the Rwanda Civil Aviation Authority. These charges include:

1. **Landing Charges**: Landing charges at Kigali International Airport are based on the aircraft's

MTOW. For international flights, these charges range from 4.5 USD. per unit for aircraft up to 50 tonnes to 4.9 USD for aircraft over 50 tonnes. Lighting charges are set at 50% of the standard landing fee.

2. **Parking Charges**: Parking is free for the first six hours, after which charges apply based on aircraft weight. Fees start at 9 USD for aircraft up to 27 tonnes and increase to 101 USD for those over 270 tonnes. This unit rate is calculated per day.
3. **Passenger Service Charges**: Passenger service charges are 5.00 USD for domestic flights,10.00 USD for regional flights, and 20.00 USD for international flights. A security charge of 20.00 USD is levied on registered aircraft belonging to the Common Market for Eastern and Southern Africa ("**COMESA**"), and 30.00 USD for non-COMESA-registered aircraft.
4. **Security and Cargo Charges**: Security charges are 10 USD for all departures. This charge is not applicable to infants under 2 years of age with and without a seat.
5. **Air Navigation Charges:** Air navigation charges are also weight-based. For international flights, charges range from 10.00 USDD for single-engine aircraft up to 6,000 kg to 300.00 USD for aircraft over 270,000 kg. Non-international flights are charged at 50% of these rates.

The regulatory framework aims to ensure safety, security, and economic efficiency. The development of the Rwandan Centre of Excellence for Aviation Skills and other infrastructure projects reflects Rwanda's ambition to enhance its status as a regional aviation hub, although the associated taxes and fees present challenges to competitiveness.

Senegal

Senegal's aviation sector is well-developed, supported by key airports such as Blaise Diagne International Airport, which serves as the primary international gateway, handling substantial passenger and cargo traffic. Léopold Sédar Senghor International Airport also serves regional flights and domestic connections, enhancing the country's connectivity within Africa. The national carrier, Air Sénégal, plays a significant role in linking Senegal to various global destinations, providing extensive international and domestic routes. Ongoing modernisation efforts are underway to expand airport capacities, upgrade facilities, and improve passenger services, with the goal of boosting the tourism sector and supporting economic growth.

Taxes and Fees

Senegal's aviation sector is subject to several taxes and fees overseen by the National Agency of Civil Aviation and Meteorology and the Senegal Civil Aviation National Agency. These charges include:

1. **Landing Charges**: Landing charges at major airports like Dakar/Leopold Senghor are based on the

aircraft's MTOW. For international flights, the charges start at 2,006 FCFA per tonne for the first 25 tonnes and increase to 5,290 FCFA per tonne for weights over 150 tonnes. For domestic flights, the rates are lower, with 378 FCFA per tonne for the first 14 tonnes and 3,602 FCFA per tonne for weights over 150 tonnes.

2. **Lighting charges**: These charges also vary by airport, with high-intensity lighting at Dakar costing 83,746 FCFA for aircraft up to 75 tonnes and 106,079 FCFA for those over 75 tonnes.
3. **Parking Charges**: Parking fees at Dakar start at 33 FCFA per tonne per hour, after the first 2 hours. Hangar fees for commercial aircraft are 25 FCFA per tonne per hour, whereas tourist aircraft are charged 15 FCFA per tonne per hour.
4. **Passenger Service Charges**: Passenger service charges include 2,500 FCFA for domestic flights and 12,000 FCFA for regional and international destinations. Additionally, there is a security charge of 4,000 FCFA for international and regional flights.
5. **Fuel Charges**: Fuel charges at Dakar are 2 FCFA per litre, while at other airports, the rate is 1.5 FCFA per litre.

Senegal's regulatory framework, is designed to ensure aviation safety, security, and efficiency, contributing to the sustainability and competitiveness of the aviation sector.

South Africa

South Africa's aviation sector is one of the most advanced in Africa, supported by well- developed infrastructure and a national carrier, South African Airways. The country has three major international airports: O.R. Tambo International Airport in Johannesburg, Cape Town International Airport, and King Shaka International Airport in Durban. These airports serve as primary gateways for both passenger and cargo traffic, connecting South Africa to numerous global destinations. Smaller airports across the country enhance domestic and regional connectivity, facilitating tourism and trade. The government has also implemented technological improvements to enhance safety and efficiency, such as transitioning from paper licenses to secure smart cards and automating aviation regulatory processes.

Taxes and Fees

The aviation sector in South Africa is subject to a wide range of taxes and fees, overseen by the South African Civil Aviation Authority and the Airports Company South Africa. These charges include:

1. **Landing Charges**: Landing fees at major international airports are based on the aircraft's maximum certified mass. For international flights, the landing fee ranges from

   90.98 ZAR for aircraft up to 500 kg to 658.84 ZAR for those over 270,000 kg. Regional and domestic flights have lower rates, with regional flights starting at 37.41 ZAR for aircraft up to 500 kg and reaching 189,36 ZAR for those over 10,000 kg, and domestic flights starting at 72.33 ZAR and going up to 842,33 ZAR for aircraft exceeding 10,000 kilograms.

2. **Parking Charges**: Parking fees at Cape Town International Airport start at 54,7 ZAR per 24 hours or part thereof for aircraft up to 2,000 kg, with higher rates for larger aircraft. The first four hours of parking are free at most airports, providing some relief for short-term stays.

3. **Passenger Service Charges**: Passenger service charges at Cape Town International Airport are 92.9 ZAR for domestic flights, 92.65 ZAR for regional flights, and 253.82 ZAR for international flights. These charges are used to maintain and improve passenger facilities at airports.

4. **Air Navigation Charges**: Air navigation charges are based on the aircraft's weight and the type of flight. For aircraft up to 5,000 kg, the cost starts at 24.24 ZAR, with additional charges for the distance flown and the aircraft's weight. For international flights, the charges are 112% of the standard rates, while regional flights to/from Botswana, Lesotho, Namibia, or Eswatini are charged at 100% of the base rate, and domestic flights at 85%. Additionally, there is a Very Small Aperture Terminal (VSAT) charge of 9.60 USD per FIR crossing for flights within the South African Development Community region.

5. **Airport Fuel Charges:** The prescribed unit rate for airport fuel at O.R Tambo International Airport is 750.53 ZAR per cubic meter.

Togo

Togo's aviation sector is expanding rapidly, with Lomé-Tokoin Airport serving as the country's main international gateway. The Togolese government has also invested in Niamtougou International Airport to enhance domestic and regional connectivity. Togo's strategic positioning in West Africa makes Lomé a significant hub for air traffic, both for passenger and cargo services. ASKY Airlines, based in Lomé, is a key player, connecting Togo with numerous destinations across the continent. Recent developments include the Togolese government's acquisition of a minority stake in ASKY Airlines, a move aimed at further establishing Lomé as a prominent aviation hub in West Africa.

Taxes and Fees

Togo imposes several aviation-related taxes and fees that impact airlines' operating costs. These charges are overseen by the National Civil Aviation Authority and include:

1. **Landing Charges**: At Lomé/Gnassingbé Eyadema Airport, landing charges are based on the aircraft's MTOW. For international flights, the fees start at 1,955 FCFA per tonne for the first 25 tonnes, increasing to 5,186 FCFA per tonne for weights above 150 tonnes. Domestic flights have lower rates, beginning at 450 FCFA per tonne for the first 14 tonnes and reaching 3,691 FCFA for

aircraft over 150 tonnes.

2. **Lighting Charges**: Lighting charges are set at 131 EUR, for aircraft up to 75 tonnes, increasing to 166.57 EUR for those over 75 tonnes. These charges apply for operations that require lighting services, such as nighttime or low-visibility landings.
3. **Parking Charges**: Parking fees are levied after the first 2 hours of parking. Thereafter, a charge of 26 FCFA per tonne per hour for both the apron and other parking areas is levied. This fee structure is designed to cover the costs of using airport facilities for extended periods.
4. **Passenger Service Charges**: Passenger service charges are 1,000 FCFA for domestic flights, 5,000 FCFA for regional flights within Africa, and 10,000 FCFA for international flights. An additional security charge of 3,000 FCFA applies for international flights.
5. **Cargo Charges**: Cargo handling fees are 8 FCFA per kilogram for imported cargo and 5 FCFA per kilogram for exported cargo. Additionally, an aeronautical development charge of 10,000 FCFA per departing passenger is imposed to support infrastructure projects.
6. **Fuel Charges**: Fuel charges are set at 3 FCFA per litre.

The regulatory framework aims to ensure aviation safety, economic efficiency, and sustainable growth in the sector. The government's strategic investment in ASKY Airlines and the ongoing modernization of airport infrastructure are crucial steps towards achieving Togo's ambition.

Zambia

Zambia's aviation sector is well-structured, with key airports such as Kenneth Kaunda International Airport (Lusaka) serving as the main international gateway, handling both passenger and cargo traffic. Other significant airports include Harry Mwaanga Nkumbula International Airport (Livingstone), which supports tourism, especially for visitors to Victoria Falls, and Simon Mwansa Kapwepwe International Airport (Ndola), which plays a vital role in facilitating business and trade in the Copperbelt region. Zambia Airways, the national carrier, connects Zambia to multiple international destinations, playing a crucial role in regional and global air travel. Zambia has launched a strategy aimed at growing its aviation industry sustainably, focusing on improving connectivity, safety, and efficiency to enhance the sector's contribution to the country's economic growth.

Taxes and Fees

The aviation sector in Zambia is subject to various taxes and fees regulated by the Civil Aviation Authority of Zambia. These charges include:

1. **Landing Charges**: At major airports like Lusaka, Livingstone, Ndola, and Mfuwe, landing charges are separated for landings performed during the day and those conducted during the night.

Landings between 06:00 and 18:00 are charged at 15.625 USD for all arrivals. During the night (18:01-05:59) the fee is reduced to 14.84375 USD This fee is calculated by multiplying the rate to the Aircraft's Maximum Takeoff Weight.

2. **Parking Charges**: Parking fees at Lusaka are set at 5 USD per hour for all traffic.
3. **Passenger Service Charges**: Passenger service charges at Lusaka are 8.00 USD for domestic flights and 25.00 USD for international flights.
4. **Cargo Fees**: Cargo handling fees are 0.01 USD per kg.
5. **Air Navigation Fees**: Air navigation fees include a 12.00 USD approach control charge and en-route charges based on aircraft weight and distance flown. Helicopters receive a 50% discount on these charges, and additional surcharges apply for services provided outside operational hours.

The regulatory framework for aviation in Zambia, is aimed at ensuring a safe, efficient, and sustainable aviation industry. The comprehensive strategy for the sector, which runs through 2026, seeks to address existing challenges such as inadequate connectivity and high operational costs, while leveraging Zambia's geographical advantage to enhance regional competitiveness.

The legal analysis of the 20 SAATM-PIP states reveals significant disparities in aviation taxes, charges and fees and regulatory frameworks across the continent. While some countries have made commendable progress in aligning their regulatory environments with international standards, others face challenges in achieving consistency and uniformity. These discrepancies create barriers to regional integration and add to the complexity of operating within the African aviation market.

High aviation taxes and fees remain a pervasive challenge, contributing to the high cost of air travel across Africa. The burden of these charges has deterred airlines from expanding their operations within the continent, limiting connectivity and hindering the growth of the aviation sector. Additionally, the lack of harmonisation in regulatory frameworks among the SAATM-PIP states presents further challenges to the operationalisation of the Single African Air Transport Market.

Despite these challenges, there are opportunities for improvement. Countries that have established independent civil aviation authorities and adopted best practices from other regions demonstrate better alignment with international standards. Harmonising aviation regulations and taxes across the continent would help to reduce operational costs, foster greater efficiency, and enhance regional connectivity.

Data Analysis

The data analysis component of this study was designed to offer a structured and comparative overview of selected aviation taxes, charges, and fees (TCFs) across the countries participating in the Single African Air Transport Market – Pilot Implementation Project (SAATM-PIP) (Appendix 4). The objective of this analytical step is not to assess the appropriateness or justification of these charges but rather to present an evidence-based depiction of their current structure, level, and distribution. By quantifying and standardising TCFs across multiple jurisdictions, the analysis contributes to a clearer understanding of fiscal variances within the African aviation landscape. This is particularly important in the context of ongoing regional efforts to enhance transparency, reduce operational cost asymmetries, and promote regulatory convergence.

The analytical process focuses exclusively on a subset of TCF categories selected for their prevalence, relevance to stakeholders, and potential influence on operational costs and market competitiveness (Appendix 1). The scope of the analysis is limited to the SAATM-PIP States to maintain consistency and comparability within the study objectives. Charges and taxes were extracted from the Aviation Charges Intelligence Centre (ACIC) database maintained by IATA—and converted into a common currency (USD) using official exchange rates from the European Commission as of December 2024. The result is a harmonised dataset that allows for structured comparisons across countries and between different types of charges. The outcomes are presented visually through graphs and tables, with calculations performed based on standard aircraft and operational parameters, as further outlined below.

Scope and Selection of Charges

The analysis was limited exclusively to SAATM-PIP States in accordance with the study objectives. A deliberate selection of aviation charges and taxes was undertaken based on relevance, data availability, and policy significance. The categories assessed are detailed in Appendix 1 and summarised below:

- **Airport Charges**: Landing fees, Terminal Navigation Charges, Overflight Charges, Cargo Charges, Air Traffic Control (ATC)
- **Fuel Charges**: Airport Fuel Fees, Concession Fees, and Throughput Charges
- **Common Charges**: Security, Development Fees, and CUTE (Common User Terminal Equipment)
- **Government-imposed taxes**: Air Passenger Tax, Airport or Aviation Tax, Security Tax, and Tourism Tax

The selection of specific taxes, charges, and fees (TCFs) for quantitative analysis was guided by their widespread application across African aviation markets, their operational and economic significance, and their consistent reference within multiple layers of this study's research methodology. The selected categories represent core cost elements that directly affect airline operations, pricing models, and passenger affordability.

These TCFs were not only observed to be commonly applied across the SAATM-PIP States but were also repeatedly cited during the stakeholder consultations as significant financial burdens influencing competitiveness, route viability, and investment decisions. For instance, fuel taxes were reported to account for up to 45% of total operating costs in Zambia and over 30% in Namibia. In parallel, the questionnaire responses revealed that these selected charges were encountered and reported by aviation stakeholders, further confirming their centrality in the sector's fiscal landscape. Additionally, the legal and regulatory analysis conducted across participating states demonstrated that these TCFs are embedded within national regulatory frameworks, highlighting their formalised role in state aviation policies and legislation.

Their inclusion in the data modelling process is, therefore, intended to strengthen the empirical foundation of the study by providing tangible, standardised evidence of how these cost items are structured and applied in practice. This alignment between qualitative findings and quantitative assessment ensures internal consistency across methodological components and enhances the robustness of the study's conclusions. By focusing the analysis on these specific categories, the study facilitates comparability across jurisdictions and provides a targeted foundation for assessing potential areas of harmonisation under the SAATM framework.

Data Source

All charge data was sourced from the Aviation Charges Intelligence Center (ACIC), a proprietary data repository maintained by IATA, which compiles published TCFs from official sources provided by airports and national authorities.

To ensure currency uniformity and analytical consistency, all charges—both unit rates and fixed rates—were converted into United States Dollars (USD). The conversion was based on the official exchange rates published by the European Commission (European Commission, 2025) as of December 2024, ensuring temporal consistency and comparability across all data points. The currency exchange rate was based on InfoEuro currency which provides the official monthly accounting rate for the euro and the conversion rates as established by the Accounting Officer of the European Commission in line with article 19 of the Financial Regulation.

Standardisation of Parameters

Charges were modelled using a uniform set of aircraft specifications to allow for consistent benchmarking across different jurisdictions. The Boeing 737 and Airbus A320 were selected as benchmark aircraft for passenger operations, while the Boeing 737 Freighter was used for cargo-related charge assessments. Parameters such as Maximum Take-Off Weight (MTOW), fuel consumption, and cargo load capacity were applied consistently to ensure comparability of charges across countries and charge types.

Boeing 737	**Parameter**	**Airbus A320**
73.5 tonnes	MTOW	78 tonnes
26,000 litres (6,868.5 US gal)	Fuel Volume	24,500 litres (6,472.6 US gal)
Boeing 737-8F		
130 tonnes	Maximum Cargo Load Capacity	

Table 31 Parameters used for Boeing 737 and Airbus A320; Source: Compiled by Author based on Boeing and Airbus websites

Where charges are levied per MTOW, the standard formula applied was:

Total Charge = Unit Rate × MTOW (metric tonnes)

For passenger-related charges (e.g., CUTE, Security, Development, Air Passenger Tax), the computation assumed:

Total Charge = Unit Rate × Total Departing Passengers (PAX)

However, due to limitations in estimating actual passenger volumes across all SAATM-PIP States, the analysis focused primarily on comparing the **unit rate values**, not the total computed amounts, unless otherwise specified. Where fixed charges were applied instead of unit rates, this was noted accordingly in the visualisation and comparative tables.

For fuel-related charges (e.g., Airport Fuel Fee, Throughput, and Concession), calculations were made using standardised aircraft fuel consumption parameters. The general formula applied was:

Total Charge = Unit Rate × Fuel Volume (in litres or US gallons, as applicable)

The formulas utilised are detailed in Appendix 3.

Analytical Presentation

The results of the quantitative analysis are systematically presented through a series of comparative visualisations and structured tables, designed to enable cross-sectional examination of aviation-related taxes, charges, and fees (TCF) across SAATM-PIP States. For analytical clarity, each TCF is presented independently to avoid category overlap and to preserve the integrity of charge-specific structures. The visual outputs are organised by major charge domains—namely **Airport Charges**, **Air Traffic Control (ATC) Charges**, **Fuel-Related Charges**, and **Government Taxes**—reflecting the principal cost centres relevant to operators and regulatory stakeholders.

The analysis integrates both unit rates and fixed rates, as reported in the source data. Where the structure of a TCF permits or requires it, the total charge has been explicitly computed using standardised aircraft parameters such as MTOW (for landing and navigation charges), fuel volume (for fuel-related fees), and cargo weight (for cargo charges). In instances where total charges could not be calculated due to the absence of traffic-specific variables (e.g., passenger numbers), the unit or fixed rate is presented as a standalone comparative measure.

In the comparative framework, the country code is used as the primary unit of analysis when the TCFs are applied uniformly at the national level, i.e., when the same unit rate or fixed fee applies across all airports within a given state. Conversely, where differentiation exists between airports within a country, the airport code is employed to reflect intra-national variation. This methodological distinction enables precise attribution of cost structures and ensures that decentralised charging practices are accurately captured in the visualisations.

Additional stratifications are incorporated where applicable, including distinctions by flight type (domestic, regional, international), charging authority, distance-based calculations, and class of service. These variables are retained in the dataset to reflect the actual conditions under which TCFs are imposed, allowing the analysis to accommodate the multidimensional nature of charge application across jurisdictions.

The graphical outputs are accompanied by explanatory annotations that clarify any modelling assumptions, formulaic structures, or deviations from national uniformity. This approach ensures that the visual representations not only convey nominal rate levels but also provide insights into the complexity, fragmentation, or coherence of charging regimes. By doing so, the analytical presentation contributes to a more rigorous understanding of fiscal heterogeneity within the African aviation sector and supports the evidence base for ongoing discussions surrounding regulatory alignment and harmonisation under the SAATM framework.

It is important to note that the purpose of this analysis is descriptive rather than normative. No value judgments are made regarding the appropriateness of individual charges. Instead, the aim is to provide a clear, standardised depiction of existing cost structures across countries, facilitating an informed discussion on harmonisation and competitiveness.

Tier Model Approach for Analysing Aviation Taxes, Charges, and Fees in Africa

This study employs a structured and scientific framework known as the Tier Model Approach to comprehensively analyse the various layers of taxes, charges, and fees applied across African aviation systems. This model organises financial burdens on air transport into analytically distinct tiers to facilitate clarity, traceability, and targeted interpretation.

The Tier Model comprises four analytically segregated layers of aviation-related financial components. Each tier reflects a functionally unique category of cost, aiding both policymakers and researchers in disentangling the financial architecture that impacts air travel within and across African states.

Tier 1 – Airport Charges

Includes passenger service fees, landing charges, parking, air bridge usage, and infrastructure levies. These charges are operationally tied to airport facility usage and vary significantly by airport class, passenger type, and route designation.

Tier 2 – Fuel Charges

Captures fuel-related cost components, including into-plane charges, storage, concession fees, throughput levies, and refuelling supervision. These charges impact airline operating costs and are affected by fuel market liberalisation, airport infrastructure, and concession frameworks.

Tier 3 – Government Taxes

Encompasses air passenger taxes, tourism levies, exit/entry duties, CAA taxes, and immigration or security fees. These represent state-imposed fiscal instruments, often for non-operational purposes, and show the widest variance across regions.

Tier 4 – Air Traffic Control Charges

Refers to en-route navigation charges, communication fees, surveillance levies, and upper airspace tariffs. These are tied to regional and national air navigation service providers (ANSPs), often coordinated through ICAO frameworks or regional blocs.

Scientific Robustness of the Tier Model

The Tier Model provides a methodologically sound structure for disentangling complex, multilayered cost environments in aviation economics. By decomposing the aviation fee system into distinct analytical tiers, the model enables cross-comparison, statistical disaggregation, and targeted econometric modelling. It aligns with multi-tier costing frameworks used in transport economics and public finance studies, ensuring analytical rigour and replicability.

Moreover, this tiered structure reflects the actual operational and fiscal ecosystem in African aviation. Each tier interacts differently with market behaviour, policy design, and regulatory oversight—warranting separate analytical treatment. For example, fuel charges affect airline marginal cost decisions, whereas government taxes often influence passenger demand elasticity.

Interpretation by Analytical Tier

Each tier in the model is treated as a discrete analytical object, enabling the study to provide tier-specific findings and policy recommendations. For instance, the interpretation of fuel charges (Tier 2) will focus on operational efficiency and concession competitiveness, while the analysis of government taxes (Tier 3) will examine economic equity, regressiveness, and tax transparency. This segmentation ensures that conclusions are both functionally relevant and scientifically defensible.

The Tier Model Approach enhances the scientific robustness and policy relevance of this study. It captures the multidimensional nature of aviation charges in Africa, offers clarity in analytical separation, and supports a nuanced interpretation of how each cost category affects airline operations, passenger behaviour, and national aviation strategy. This methodology is not only suitable for Africa's diverse regulatory landscape but also adaptable for use in future global aviation pricing reforms.

Tier 1 - Airport Charges

The use of the median as the primary measure of central tendency in this study analysis was intentional and methodologically appropriate, given the nature of the dataset. Airport charges, both fixed and unit rates do exhibit a high degree of variability across countries and airports, and in many cases are influenced by outliers or extreme values resulting from unique local conditions, bundled services, or non-standard application of fees. Unlike the mean, which is sensitive to such outliers, the median provides a more robust and reliable representation of the typical charge level within a given category or location. This ensures that the results reflect a more accurate central value of the dataset, especially in contexts where skewed distributions or small sample sizes may be present. From a research perspective, the use of the median enhances the comparability and interpretability of the findings, supports benchmarking of charge structures across jurisdictions, and mitigates distortion in cross-sectional analysis in particular when assessing policy implications or evaluating harmonisation potential within African aviation markets.

The Figure 86 presents a comparative overview of airport charges across multiple charge categories, derived from the full dataset available for SAATM-PIP States. Both median unit rates and median fixed rates (converted to USD) are displayed, providing a standardised cross-category view of the underlying cost structures applied at airports across the continent. The median was selected as the preferred measure of central tendency to reduce the impact of outliers and reflect a more representative value for each charge type. Figure 86 highlights an interesting observation on fixed rate categories. The high impact charge categories are listed below in Table 32 with the corresponding unit rates.

Charge Category	Median Unit Rate (USDD	Median Fixed Rate (USDD)
Operation Beyond Operating Hours	USD 116.73	USD 20.93
Fire Fighting and Prevention	USD 50.00	USD 100.00
Airport service charge	USD 40.13	USD 0.00
Development	USD 21.08	USD 0.00

Landing	USD 5.02	USD D30.52

Table 32 High-Impact Charge categories for African airports; Source: Author analysis based on ACIC, 2024

These fixed fees significantly impact airline operational costs, especially for carriers operating at off-peak or underserved times. They may also disproportionately burden small or low-cost carriers that cannot optimise schedules as flexibly.

Overall, the results highlight significant variation between unit-based and fixed-rate charges across categories. Categories such as Lighting, Parking, Infrastructure, and Passenger Bus show high fixed-rate medians (e.g., Parking: USD 158.21) Lighting: USD 134.83 Infrastructure: USD 89.26; Passenger Bus: USD 88.55), while categories like Security (USD 5.51), Passenger Service (USD 7.49), and CUTE (USD 0.81) are typically applied as unit rates.

Some categories are characterised by the use of both unit and fixed rate structures - Air Bridge and Infrastructure. In such cases, the final charge payable will depend on the computation formula used at a particular airport, which may include a combination of fixed and variable components depending on the service scope and aircraft specifications. The analysis here does not estimate total payable amounts but rather presents the published input rates in their original forms for transparency and comparability.

Certain charges stand out due to their application context. For instance, the Fire Fighting and Prevention charge shows a median unit rate USD 50.00 and a fixed rate of USD 100.00 but this value is recorded only at ACC, which may not be representative of wider applications. Similarly, Operation Beyond Operating Hours has a high median unit rate of USD116.73, suggesting this category is subject to cost premiums due to overtime or non-standard scheduling.

Categories such as Baggage (USD 0.28), Hangar (USD 0.24), and Cargo (USD 0.02) exhibit low median values, possibly indicating minimal per-unit charges or service bundling with other cost components. Many African airports lack automated baggage systems, relying on manual labour and also ground handling is often bundled with broader contracts signed by airlines or third-party handlers. The low median charge likely reflects:

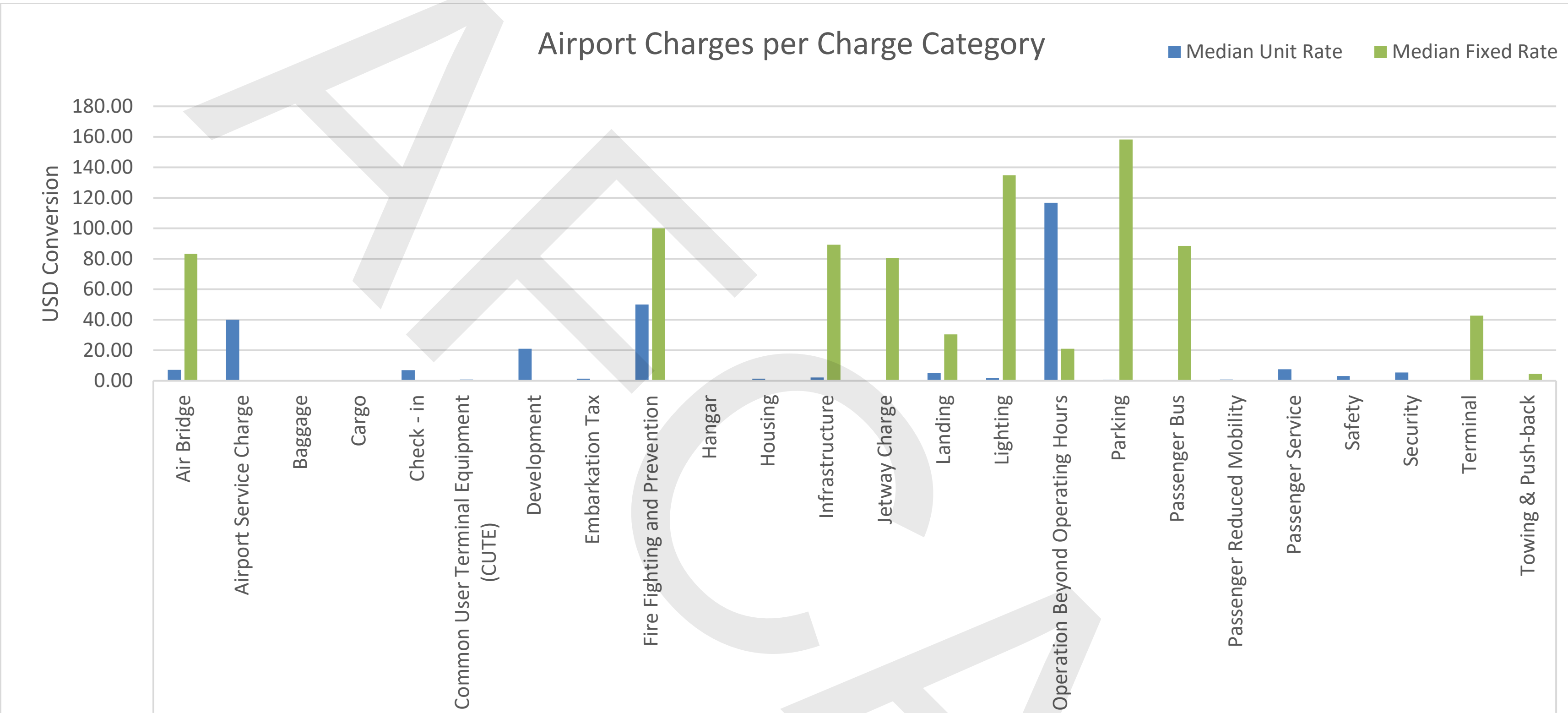
- Subsidisation by airports or governments
- Baggage charges being absorbed into ticket prices or ground handling contracts
- Lack of transparent disaggregation of costs

Table 33 lists airport charge categories that display low or zero median rates based on available data. These charges may be bundled with other fees, inconsistently reported, or not charged at all in certain jurisdictions, highlighting the need for greater transparency and standardisation.

Charge Category	Interpretation / Observation
Passenger Reduced Mobility	May be waived or included in other service charges; reflects inclusive service policy.
Passenger Service	Could be integrated with terminal fees or handling charges; often lacks standalone transparency.
Security	May be funded through national aviation security programs or bundled under airport charges.
Safety	Usually covered under operational costs; not charged separately in many cases.
Check-In	Potentially bundled with terminal or airline ground handling costs.
Common User Terminal Equipment (CUTE)	May be integrated into passenger facility or terminal use fees.

Table 33 Categories with Low or Zero Charges; Source: Author analysis based on ACIC, 2024

Overall, this breakdown underscores the diversity in charge structures, not only between categories but also within them, depending on whether rates are fixed, unit-based, or mixed. Understanding these differences is essential when assessing the full financial burden of airport usage and when comparing fiscal environments across states.



Note: The chart visualises only median fixed and unit rates. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport. For example, air bridges and infrastructure charges often combine both fixed and unit components.

Figure 86 Airport charges per charge category; Source: Author analysis based on ACIC, 2024

This analysis presents a comparative view of airport charges per airport, based on median unit rates and median fixed rates, standardised in USD. The highest median fixed rates are recorded at the following airports, all located in Congo (CG) – USD 212.08 (PNR, OLL, BZV). These values are driven by the inclusion of high-cost fixed components, particularly for Air Bridge and Lighting, which are among the most expensive fixed charges applied across the dataset. The simultaneous application of these elements at the above-listed airports results in significantly higher overall fixed rate profiles. Therefore, fixed rates add baseline costs per flight regardless of passenger count or load, limiting flexibility for low-cost and regional carriers. Below, Table 34 illustrates categories with high fixed rates.

Charge Category	Median Fixed Rate (USD)	Interpretation / Implication
Operation Beyond Operating Hours	USD 20.93	Reflects overtime operations and staffing after normal airport hours.
Landing	USD 30.53	Charged per landing regardless of load; increases baseline operational costs.
Infrastructure	USD 89.26	Passenger-based tax that may not correspond directly with services rendered.
Fire Fighting and Prevention	USD 100	Safety compliance fee; could benefit from scaling based on aircraft size.
Air Bridge	USD 83.30	Infrastructure usage charge; may be optional at some airports.
Jetway Charge	USD 80.41	Related to use of boarding bridges; fixed regardless of duration or passenger numbers.
Parking	USD 158.21	Highest fixed cost; Applied per aircraft stay; may penalise delayed turnarounds or schedule inflexibility.

Table 34 Categories with High Fixed Rate; Source: Author analysis based on ACIC, 2024

Conversely, the lowest median fixed rate is observed at APL (Nampula Airport, Mozambique), recorded at USD 13.50, This comparatively low value is attributable to the application of a fixed landing charge that applies only to aircraft within the 0–5.5 metric tonne MTOW range, significantly reducing the total fixed fee burden for most operators.

Regarding median unit rates, the highest value is registered in Kenya, at USD 40.00. This reflects Kenya's landing fee scheme, which applies steeply progressive unit rates for heavier aircraft categories, thereby increasing the unit cost for operations involving mid to large-sized commercial aircraft.

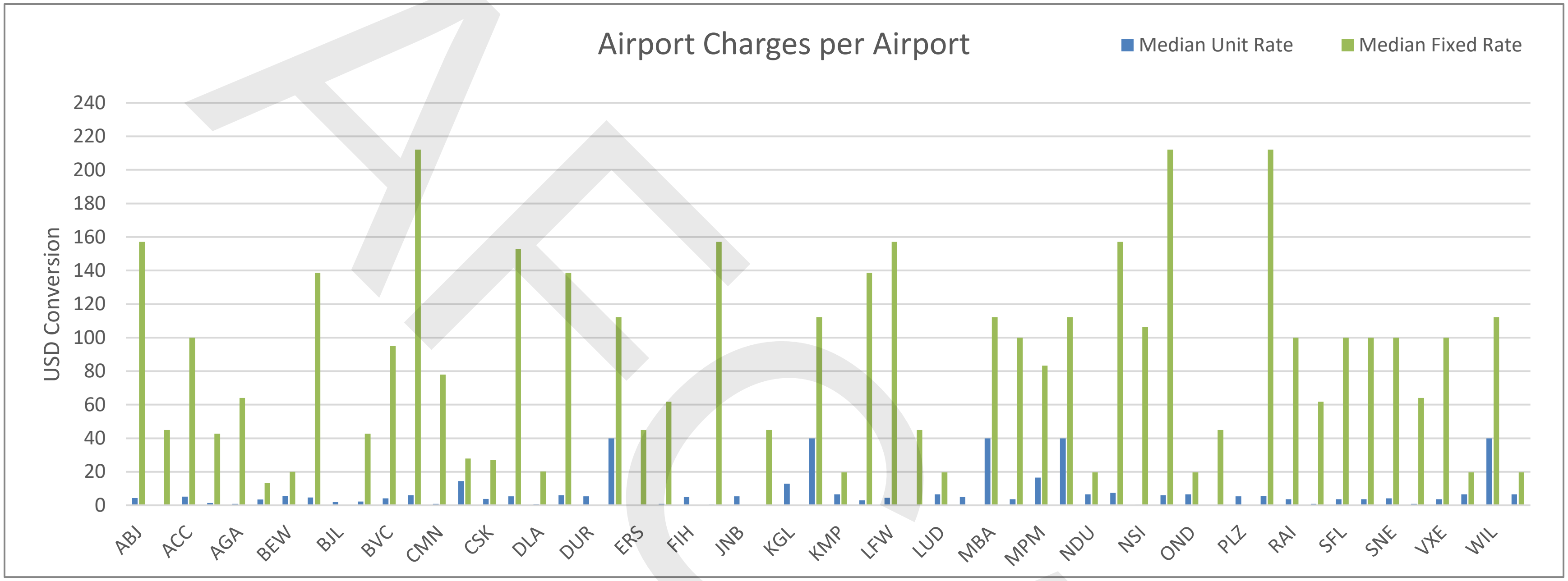
In contrast, the lowest median unit rate is recorded at ABV (Nnamdi Azikiwe International Airport, Nigeria), at just USD 0.01: This exceptionally low value results from the application of minimal unit charges for key operational services such as landing and parking, which are priced at levels approaching zero in Nigeria's current charging framework.

Table 35 summarises key observations from the comparison of median unit and fixed charges across SAATM-PIP airports. It highlights structural challenges in the pricing of airport services and offers insight into areas requiring regulatory alignment.

Key Finding	Impact / Interpretation
High fixed charges create a baseline financial barrier for each flight	Disproportionately affects small carriers and short-haul operations; discourages frequency and new route entry.
Unit rates impact scaling costs – especially with fluctuating fuel and weight charges	Higher operating cost per kilometre or per seat; adds volatility to route profitability.
Inconsistent pricing across airports leads to market distortion	Airlines may avoid expensive airports, harming regional balance and connectivity goals.
Many categories show duplication (both fixed and unit rates)	Risk of double charging; creates opacity and increases administrative burden.

Table 35 Summary of combined observations of median unit rate vs. median fixed rate; Source: Author analysis based on ACIC, 2024

The findings presented above highlight key observations that SAATM-PIP airports present a complex, often fragmented charging environment. A clear, transparent, and harmonised structure of both unit and fixed rate charges is essential to reduce air transport costs, encourage regional connectivity, and attract more carriers under initiatives like SAATM and AfCFTA.



Note: The figures reflect only the median values of published unit and fixed rates per airport. The total charge paid by an airline or passenger will vary depending on the calculation formulas in use, which may include both fixed and unit components depending on the service type and aircraft profile.

Figure 87 Median airport charges disaggregated by traffic type; Source: Author analysis based on ACIC, 2024

Figure 87 above presents median airport charges disaggregated by traffic type, with both unit rates and fixed rates converted to USD. Fixed rates (orange bars) dominate across nearly all airports, with much higher values than median unit rates. Significant variability in charges is visible between airports with 3 airports charging over USD 100 for day landing, night landing and sub regional. Unit rates (blue bars) are generally low or minimal but still present in some major airports.

The analysis reflects charge conditions across the SAATM-PIP States and provides insight into how airport pricing structures vary depending on the nature of the flight (e.g., international, regional, sub-regional, class of travel, or time of operation).

The highest median fixed rate is associated with Night Landing at USD 122.40 in KE, NG, ZM, and Sub-Regional traffic at USD 125 in GH (ACC). These categories likely reflect surcharges applied for night-time operations, long-haul services, or regional complexity, which often include infrastructure-related costs (e.g., lighting, staff overtime, navigation). Fixed charges are front-loaded**,** meaning airlines pay substantial fees regardless of load factor or distance, making short-haul and night flights disproportionately costly.

By contrast, the lowest fixed rates are found in sub-regional daytime/off-peak operations, with a median of USD 20, and sub-regional night-time/peak categories at USD 30. These comparatively lower rates suggest an effort to incentivise off-peak and intra-regional traffic flows. They are present only in GH, ACC across the SAATM–PIP states. The sub-regional daytime/off-peak category, which refers to intra-African flights that operate during regular day-time hours within a regional bloc (e.g., ECOWAS, EAC, SADC)—shows the lowest median fixed rate across all traffic types in the dataset.

Why the fixed charge is low?

1. Operational Cost Efficiency:
    - Flights during daylight hours don't incur extra charges for overtime staffing, lighting, or heightened security.
    - Utilisation of infrastructure is at its most cost-effective during these times.
2. Simplified Handling for Regional Flights:
    - Sub-regional flights may bypass complex customs and immigration procedures found in international routes, reducing the fixed service scope.
    - Less ground handling complexity → Lower fixed overhead per flight.
3. Policy Intent or Regional Agreements:
    - Regional economic communities (RECs) like ECOWAS or SADC may implement reduced fee frameworks to promote connectivity within the bloc.

In terms of unit rates, the most substantial charges are associated with differentiated passenger categories. International departures in business and first class exhibit a median unit rate of USD 85.4; while regional business/first-class departures follow at USD 71.7, and international economy class departures at USD 56.9. These figures point to a clear segmentation strategy, where charges are scaled according to service class, consistent with broader cost-distribution and revenue-generation practices in commercial aviation.

The data shows that business and first-class passengers face noticeably higher airport-related unit charges than those flying in economy. This aligns with global practices, where higher-class fares are often associated with:

- Greater use of premium lounges and fast-track services
- Additional security or customs privileges
- Enhanced ground support and VIP services

Thus, charging more for premium passengers reflects a cost-recovery model and demand elasticity as wealthier travellers are generally less price sensitive, allowing airports to recover service costs more easily.

Additionally, traffic departing outside the West African sub-region reflects a high median unit rate of USD 150, which is only in GH (ACC) while within the sub-region, charges are also substantial at USD 60, possibly indicating region-specific surcharges or differentiated policy frameworks. At USD 150, this is the highest unit charge across all traffic types.

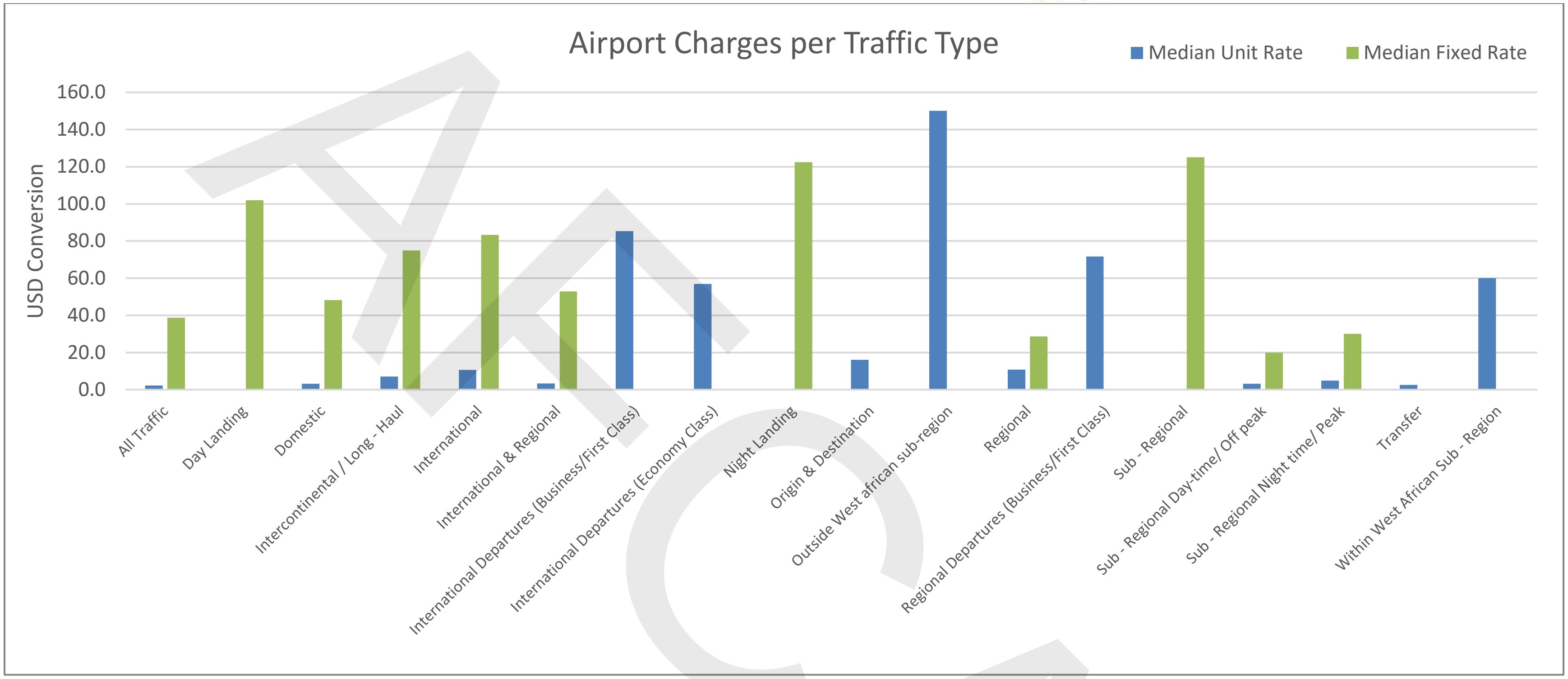
The likely drivers:

- Includes Passenger Service Charges, Safety Levies, and possibly Embarkation or Tourism Development Taxes.
- Ghana may be using airport levies as a revenue source, bundling multiple charges into one line item.
- International processing fees (immigration/security) could be higher due to operational complexity or infrastructure financing (e.g., for Terminal 3 at Kotoka International Airport).

This makes long-haul travel from Ghana significantly more expensive, undermining competitiveness vs. regional hubs (e.g., Abidjan, Lagos, Lomé). Moreover, this could potentially discourage transit traffic and affect Ghana's position as a competitive aviation gateway.

The extremely high USD 150 median unit charge for traffic departing outside West Africa via Ghana (ACC) and the substantial USD 60 charge within the sub-region highlight the urgent need for harmonised, affordable pricing structures in West African air travel. These fees represent significant barriers to both long-haul and intra-African connectivity, and should be a priority focus for AFCAC, ECOWAS, and Ghanaian aviation authorities in the context of SAATM and AfCFTA implementation.

In contrast, the lowest median unit rates are observed for day landing and night landing, both reported close to zero, present in NG and ZM. Similarly, sub-regional traffic reflects a minimal unit rate of USD 0.20 and transfer traffic is charged at USD 2.50: Domestic traffic presents a modest median unit rate of USD 3.20, consistent with expectations of lower service intensity and shorter operational distances.



Note: *The figures reflect only the median values of published unit and fixed rates per airport. The total charge paid by an airline or passenger will vary depending on the calculation formulas in use, which may include both fixed and unit components depending on the service type and aircraft profile.*

Figure 88 Air charges per traffic type; Source: Author analysis based on ACIC, 2024

General Trends and Interpretation

International flights show a higher median fixed rate than Domestic and Regional, however, in terms of median unit rates the international and regional have very close values. Confirming that international operations generally attract higher base fees and per-use charges, consistent with ICAO principles of cost recovery for longer-distance traffic.

Overall, Figure 88 underscores the complexity and stratification of airport charge systems based on traffic type. Both the service class (economy vs. business), operational timing (day vs. night), and geopolitical coverage (domestic, regional, international) significantly influence the financial burden levied on airlines and passengers. The observed variance highlights the importance of harmonising rate structures to improve cost predictability and operational transparency across African airspace.

Furthermore, the regression line and plot show (Figure 89) that there is no strong or consistent relationship between how SAATM-PIP states airports set unit charges and fixed charges across traffic types. This validates the need for better pricing coherence and policy harmonisation under AFCAC and SAATM.

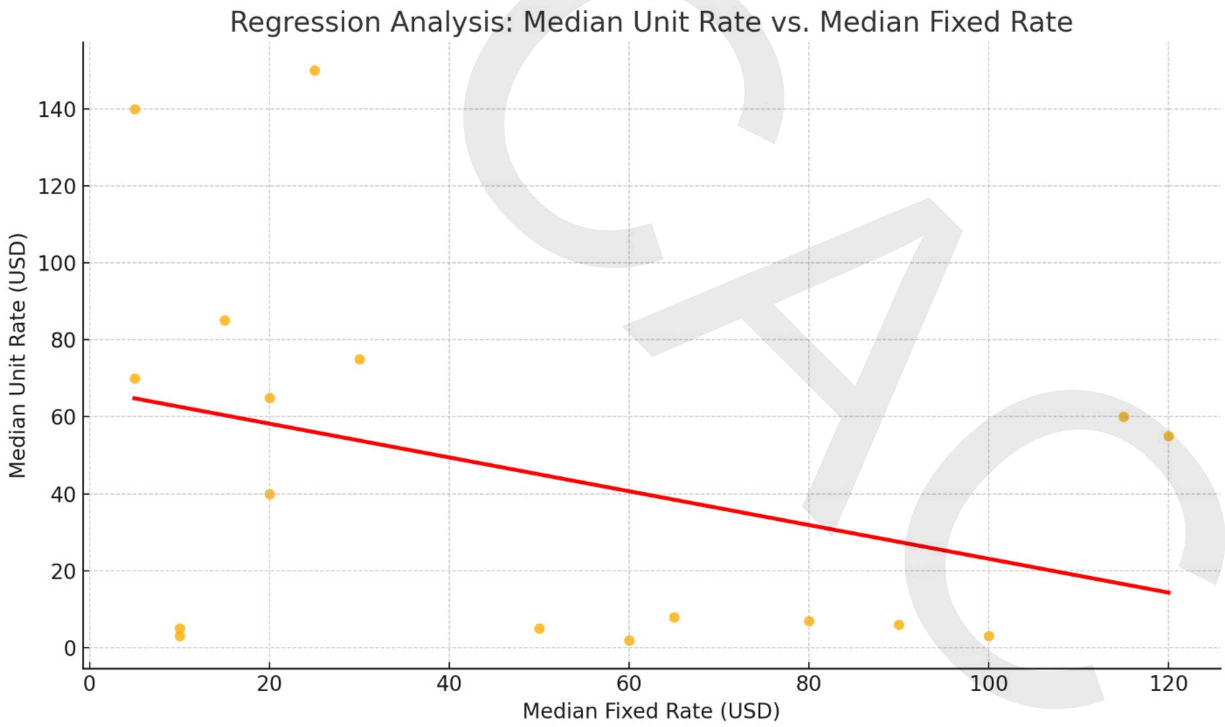


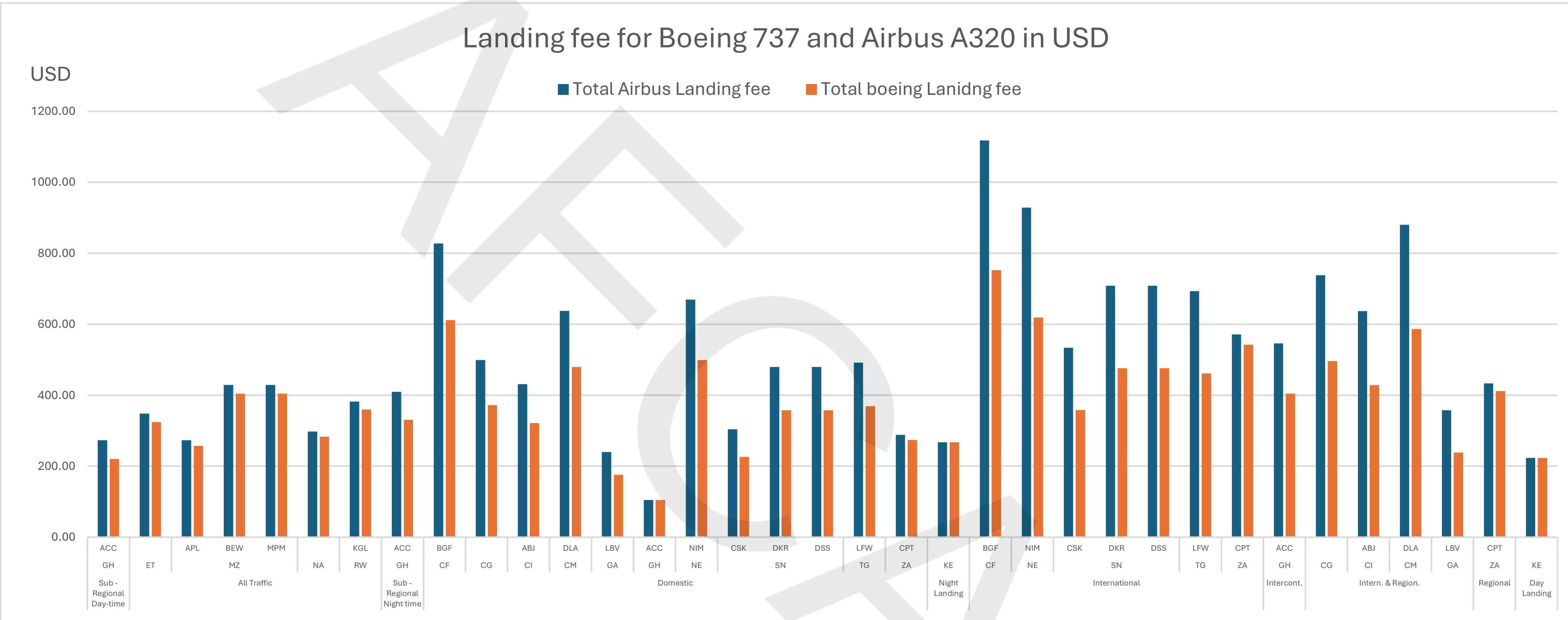
Figure 89 Median unit vs. Median fixed rate; Source: Author analysis based on ACIC, 2024

Aircraft landing fees

A landing fee is a charge paid by an aircraft operator to an airport company for landing at a particular airport. Landing fees can vary greatly between airports, with congested airports, ones where most of the landing slots are held by airlines, being able to charge premium prices because of supply and demand, while less congested airports charge less because the demand is not as high. The money generated by landing fees is used to pay for the maintenance or expansion of the airport's buildings, runways, aprons, and taxiways. The benchmark aircraft models adopted in this study for landing fee comparisons, included the Boeing 737 vs Airbus 320 since these are the most popular aircraft types within the fleet structure of African airlines.

Figure 90 presents the total landing fees in USD for both aircraft types across the SAATM-PIP States. Fees are displayed either by airport code or country code, depending on the national landing fee structure. Where airport codes are used (e.g., ACC, CPT, DSS), this indicates that the landing fees vary by airport, reflecting decentralised charging regimes. In contrast, where only the country code is shown (e.g., ET, MZ, KE), this denotes that a uniform national fee structure is in place, and the same landing charges apply at all airports within that state.

The analysis further amplifies the different variations that underpin landing fees across the SAATM - PIP countries, highlighting various key observations at the country level related to aeronautical aircraft landing fees. At the top three, in terms of high international landing fees, Central African Republic has the highest fees for landing for both the Airbus A320 (USD 1117,54) and Boeing 737 (USD 752,49), followed by Niger (A320 – USD 928,92, Boeing 737 USD 618,77) and Cameroon (A320 – USD637,81; Boeing 737 USD 479,68) respectively. At a domestic level, Ghana has the lowest fees for both aircraft types which share the same landing fee set at USD 105. See Figure 90 below for an amplified visualisation.



Note: *To compute the total landing charges in USD for Boeing 737 and Airbus A320, the following parameters were applied: Airbus A320 charges were calculated based on a Maximum Take-Off Weight (MTOW) of 78 tonnes. Boeing 737 charges were calculated based on an MTOW of 73.5 tonnes. The general formula applied is Unit Rate × MTOW (in Metric Tonnes). However, the following exceptions apply: In Kenya (KE), a fixed charge structure is used instead of a unit rate calculation. In Namibia (NA) and South Africa (ZA), the total charge is calculated using a combination of fixed charge and unit rate.*

Figure 90 Landing fee for Boeing 737 vs. Airbus 320 in USD; Source: Author analysis based on ACIC, 2024

Passenger Service Charge

The passenger service charge (PSC) is presented across four traffic categories: domestic, regional, international, and all traffic—the latter referring to cases where the applicable rate does not vary by traffic type. The charges are visualised in terms of unit rates (in USD) to ensure consistency and comparability across jurisdictions. The standard calculation for PSC is defined by the formula:

Total Passenger Service Charge = Unit Rate × Total Departing Passengers (PAX)

Given that reliable, airport-specific or national passenger volume data was not uniformly available across all SAATM-PIP States, this analysis limits itself to reporting unit rate values only. Total charges were not computed due to the absence of consistent passenger traffic data.

The visual representations offer a cross-sectional overview of the PSCs applied at the country level, as in most states a uniform national rate is applied across all airports. The only exception identified in the dataset is Morocco, where differentiated PSCs are levied at specific airports (e.g., CMN, RAK, TNG). This intra-national variation is reflected in the figures by visualising the airport codes rather than the country codes.

In addition to geographic variation, the PSC structure in some States includes differentiation by passenger category (e.g., adults versus children) or service class (e.g., economy, business, first class). Where such distinctions were identified in the source data, they have been preserved in the analysis for accuracy and transparency.

The visualised data on passenger service charges (PSC) reveals significant variability in unit rates across countries and traffic types (Figures 92-95).

Ghana (GH) applies one of the lowest domestic PSCs at USD 0.32; but simultaneously levies the highest regional (USD 60.00) and international PSCs (USD 100.00–200.00 depending on class), indicating a clear strategic pricing differential between local and international operations. This pricing model suggests that Ghana prioritises affordability for domestic passengers while maximising fiscal returns from international traffic.

Similarly, Nigeria (NG) maintains moderate domestic charges (USD 1.18) but ranks among the highest in international PSCs, with USD 50.00 for general departures and USD 80.00 for ECOWAS destinations. This reflects a consistent emphasis on international departures as a key revenue source.

In contrast, Mozambique (MZ) applies the highest domestic PSC at USD 13.00 but a lower international rate of USD 35.00 showing less disparity between local and international pricing tiers. The narrow gap may indicate a uniform cost-recovery approach rather than demand-based segmentation.

Namibia (NA) also follows a relatively consistent model, applying USD 7.49–7.88 USD domestically, 15.09 USD regionally, and USD 28.54 internationally, demonstrating progressive scaling of charges with traffic distance or market type.

On the other hand, Cameroon (CM) shows consistently low PSCs across all categories: 0.24 USD (domestic), USD 13.23 (regional), and USD 10.68 (international), suggesting a policy geared toward keeping air travel charges relatively accessible.

Cape Verde (CV) presents a nuanced structure, with tiered domestic charges (e.g., USD 5.74 for adults, USD 2.87 for children), and modest rates across regional (not listed explicitly) and international traffic (USD 16.63 for adults, USD 8.32 for children), plus low transfer fees (USD 4.11–4.24 USD), indicating a broad-based affordability approach possibly linked to its tourism-dependent economy.

Lastly, South Africa (ZA) applies USD 5.42 domestically, USD 11.25 USD regionally, and USD 25.00 internationally—a structure that aligns logically with travel distance, maintaining moderate pricing without significant spikes.

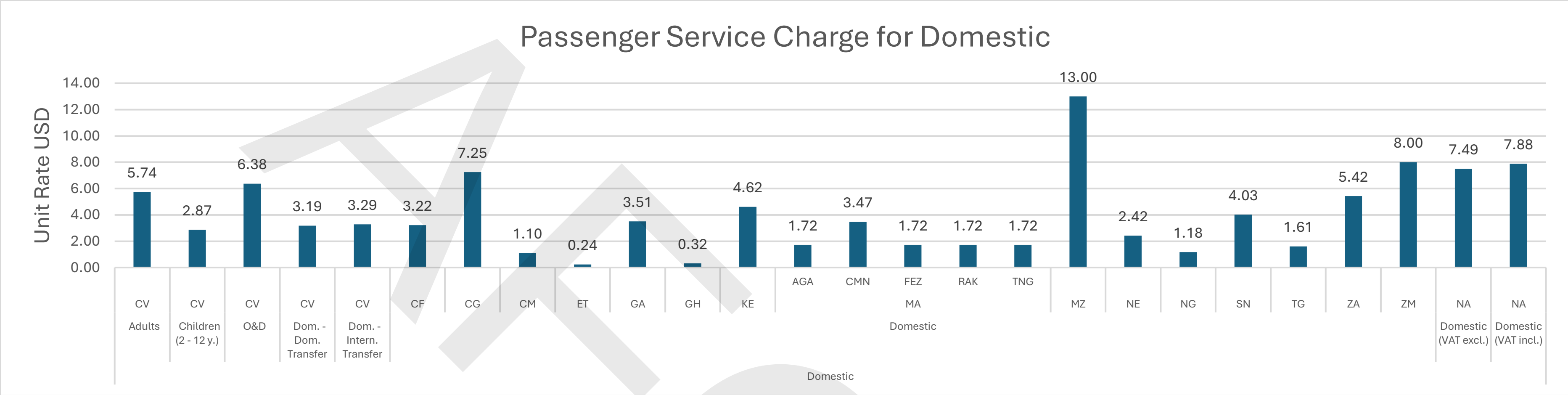


Figure 92 Passenger service charge for domestic; Source: Author analysis based on ACIC, 2024

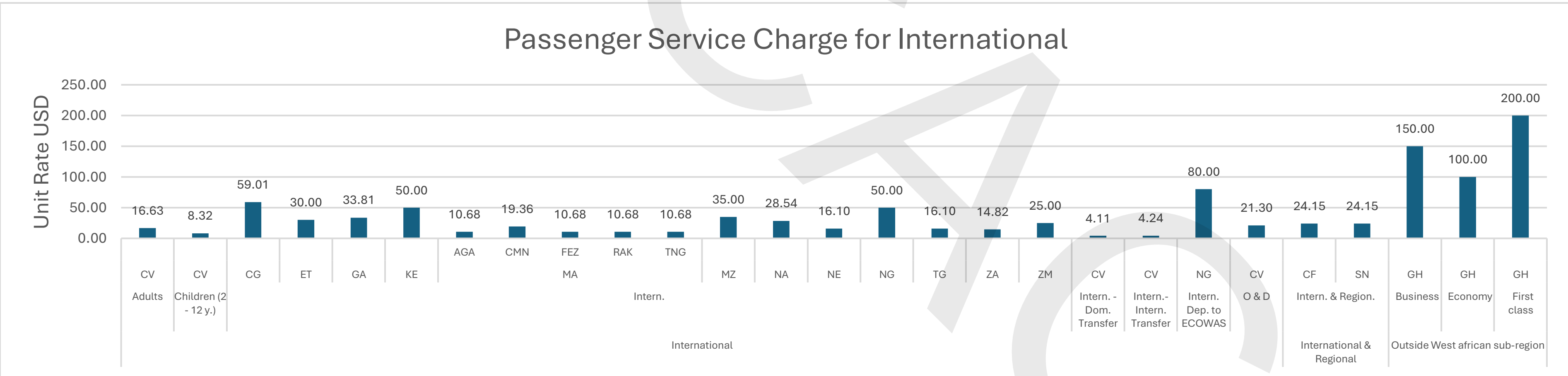


Figure 91 Passenger service charge for international; Source: Author analysis on ACIC, 2024

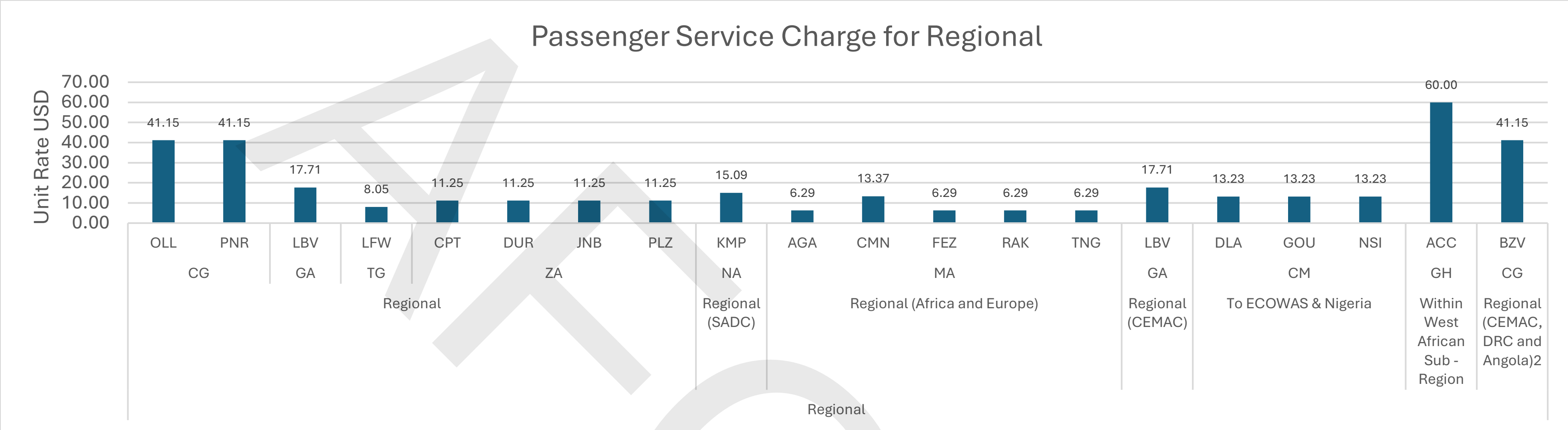


Figure 94 Passenger service charge for regional; Source: Author analysis based on ACIC, 202

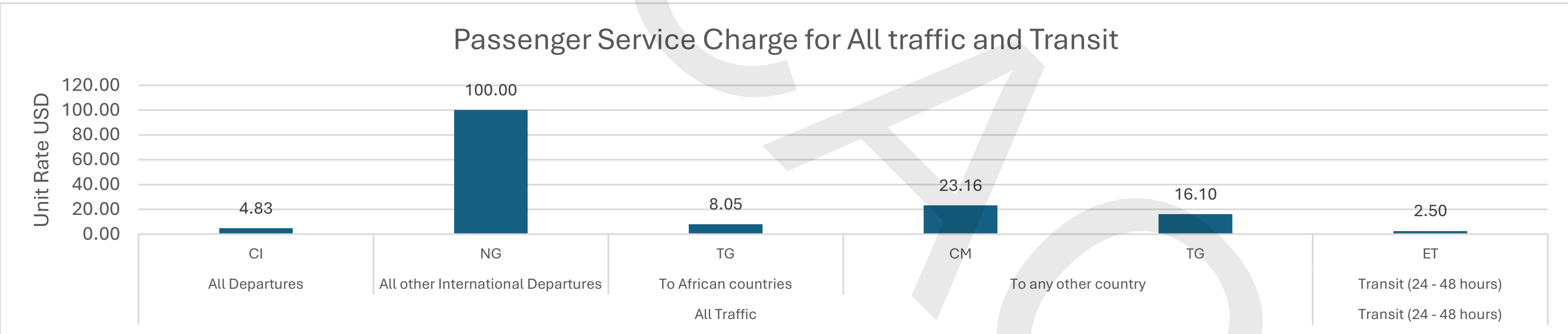


Figure 93 Passenger service charge for all traffic and transit; Source: Author analysis based on ACIC, 2024

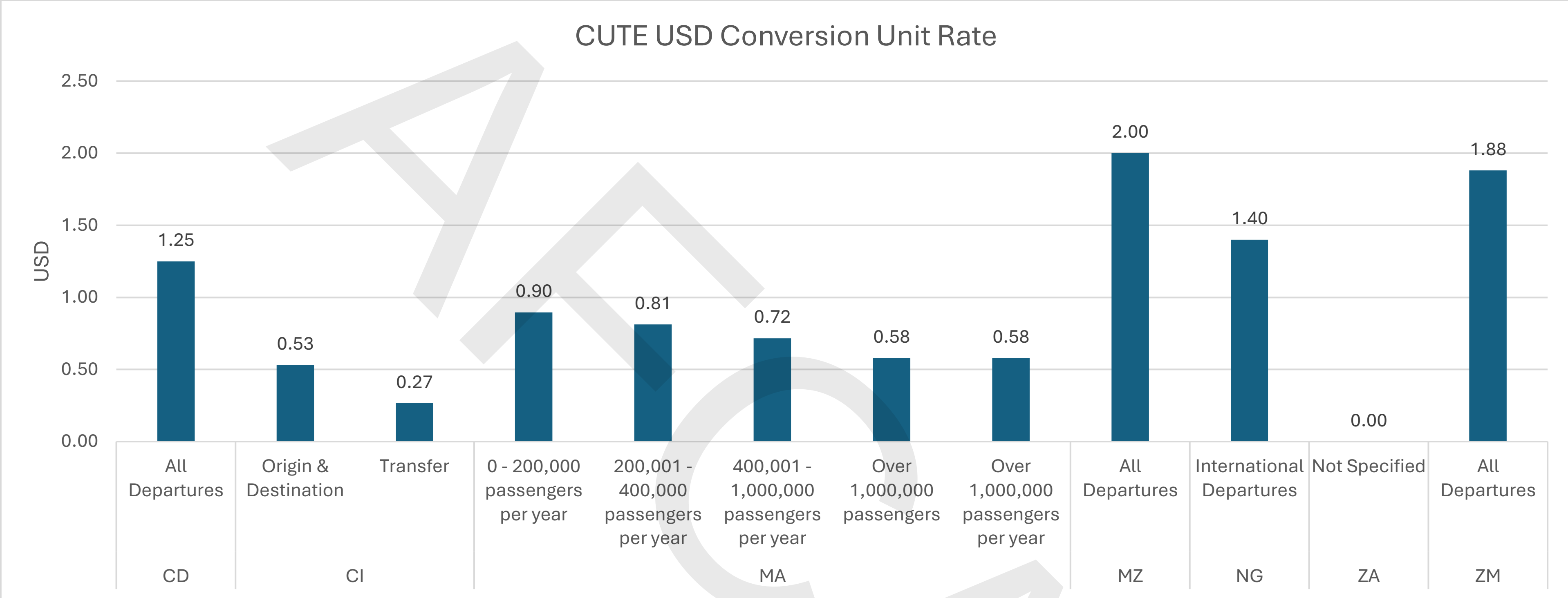
Common User Terminal Equipment (CUTE)

The analysis conducted to establish the various CUTE charges illustrates an interesting picture in terms of different charges levied at a country level across the SAATM-PIP states. Notably, Mozambique emerged with a collective basket charge of 2.00 USD for all passenger departures. Zimbabwe ranks second with charges applicable to all passenger departures (domestic and international), levying 1.88 USD. Chad also employs a blanket rate for all passenger departures and the charge stands at 1.25 USD However, Nigeria only employs charges for CUTE for international passengers. See Table 36 below.

The following comments are provided by the ACIC database:

Country Code	Airport Code	Comment
MA	AGA	1. The fee CUTE (Common Use of Terminal Equipment) must be collected at airports equipped with this system for all flights taking off and having used for the recording of these passengers. It is collected by ONDA.
MA	CMN	1. CUTE (Common Use of Terminal Equipment) must be collected at airports equipped with this system for all flights taking off and having used for the recording of these passengers. It is collected by ONDA.
ZA	CPT	1. Included in Baggage (ACS charge).
ZA	DUR	1. Included in Baggage (ACS charge).
MA	FEZ	1. The fee CUTE (Common Use of Terminal Equipment) must be collected at airports equipped with this system for all flights taking off and having used for the recording of these passengers. It is collected by ONDA.
ZA	JNB	1. Included in Baggage (ACS charge).
ZM	LUN	1. So-called CUTE and CUSS charge.
ZA	PLZ	1. Included in Baggage (ACS charge).
MA	RAK	1. The fee CUTE (Common Use of Terminal Equipment) must be collected at airports equipped with this system for all flights taking off and having used for the recording of these passengers. It is collected by ONDA.
MA	TNG	1. The fee CUTE (Common Use of Terminal Equipment) must be collected at airports equipped with this system for all flights taking off and having used for the recording of these passengers. It is collected by ONDA.

Table 36 Comments on CUTE; Source: ACIC, 2024



Note: *CUTE refers to Common User Terminal Equipment (CUTE), which is typically used at airport check-in and boarding counters. The calculation of charges is based on the formula: Unit Rate × Total Departing Passengers (PAX).*
As passenger volumes (PAX) cannot be reliably estimated for this analysis, the figure presents only the unit rate values in USD, allowing for a comparative overview. Where the charge is not specified (0.00), it indicates that the cost is included under Baggage (ACS) charges and is not applied as a separate CUTE

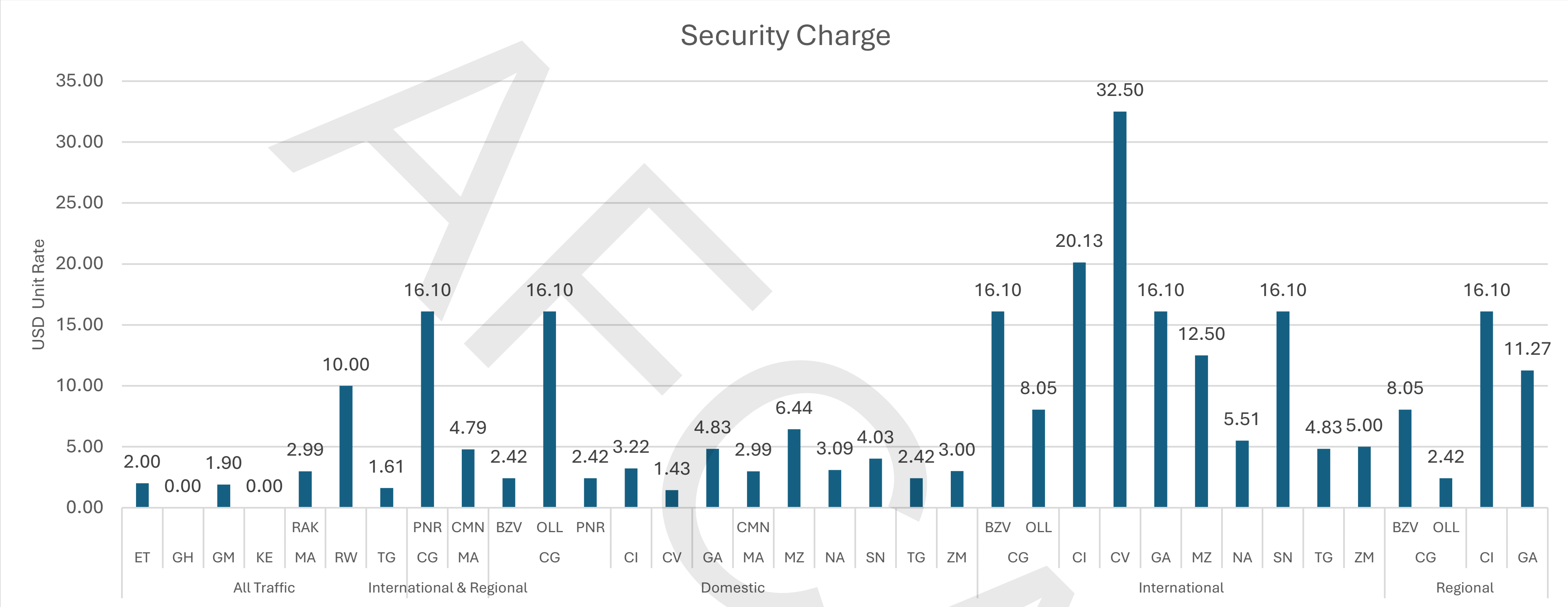
Figure 95 Common user terminal equipment rates by country; Source: Author analysis based on ACIC, 2024

Security Charge

States are responsible for ensuring the implementation of adequate security measures at airports pursuant to the provisions of Annex 17 – Aviation Security to the Chicago Convention. They may delegate the task of providing individual security functions to such agencies as airport entities, aircraft operators, and local police. It is up to the States to determine in which circumstances and the extent to which the costs involved in providing security facilities and services should be borne by the State, the airport entities, or other responsible agencies.

The deployment of security charges at airports has become widely used but with different unit rate variations across African airports. Cabo Verde ranks the highest in terms of security charges levied on international passengers with a unit rate of USD 32.50, but at domestic level, it has a lower unit rate of USD 1.43: At the regional level, the security fee charge levied at passengers, Cote d'Ivoire ranks the highest (USD 16.10) and Senegal and Cote d'Ivoire charge the same USD 16.10 for its international passengers (Figure 96). At the domestic level, notably the charges are relatively lower, with Mozambique charging USD 6.44 and the lowest being charged by Cabo Verde at USD 1.43. Kenya and Ghana employ a zero-rate security charge for all traffic, with Rwanda charging a flat rate of USD 10.00 for all its traffic. With the exception of Kenya and Ghana, Togo exhibits a lower flat rate for all its traffic, and this stands at USD 1.61 and Gambia USD 1.90 (Figure 96).

Cameroon and the Republic of Congo employ a flat fee structure applicable for both regional and international passengers and is levied as follows: USD 16.10 and USD 4.79 respectively.

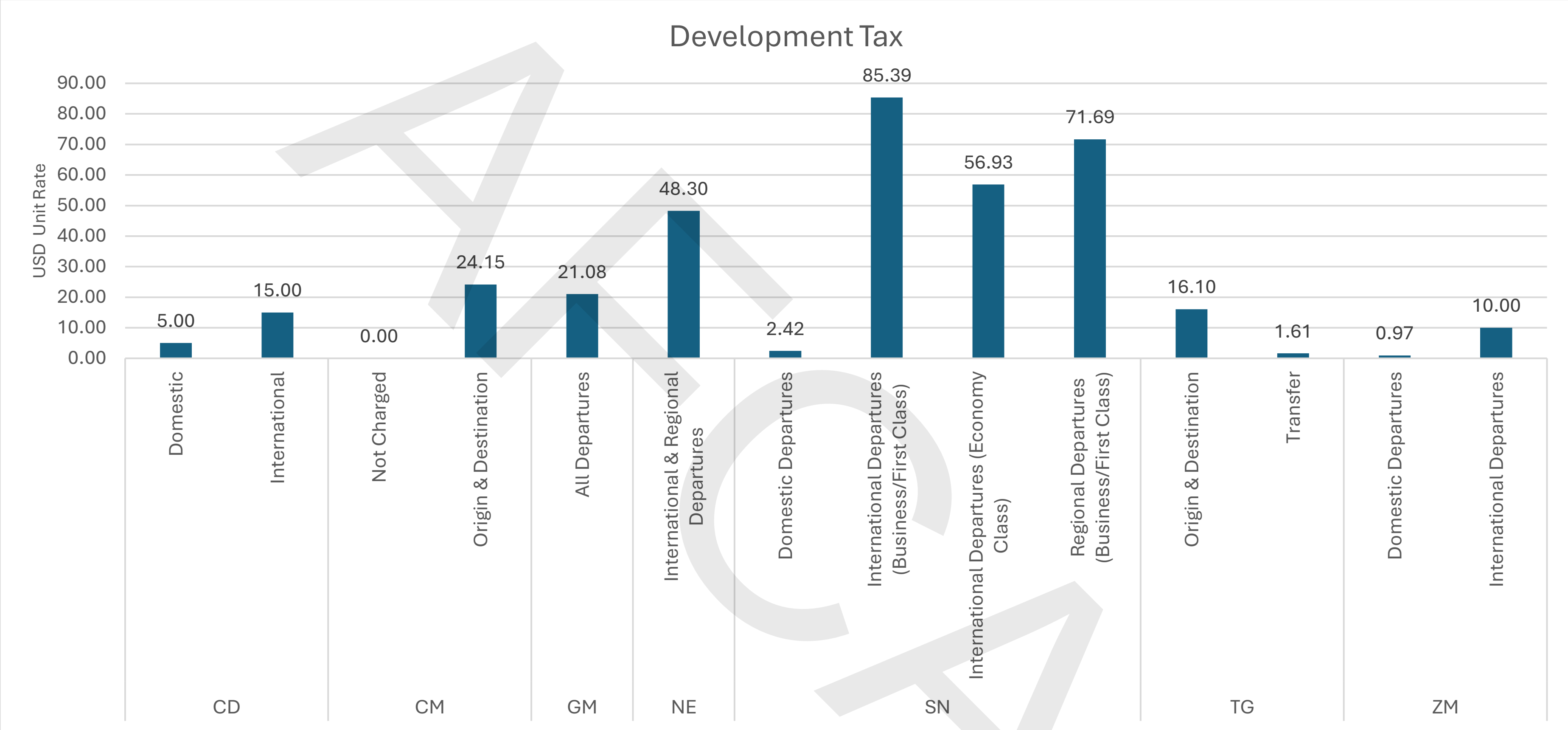


Note: *The Figure illustrates the unit rates (in USD) applied as Security Charges by various airports. The applicable formula for calculating the total charge is Unit Rate × Total Departing Passengers (PAX). However, as passenger volumes (PAX) cannot be reliably estimated for this analysis, the figure presents only the unit rate values to provide a comparative overview.*

Figure 96 Security charges by airport at country level; Source: Author analysis based on ACIC, 2024

Development Tax

Based on the ACIC dataset, seven countries from the SAATM-PIP states have adopted a Development Tax regime structure imposed on airfares. However, the majority of African countries didn't have this tax structure. The unit rate charges vary depending on whether it is a domestic, regional, or international flight and in the case of Senegal it is defined also by class seating type (First class, Business or Economy). Thus, the charges levied on international First and Business class departures are USD 85.39, regional departures at USD71,69 (First and Business Class) and international departures (Economy class) USD 59.93 and for its domestic departures, a charge of USD 2.42 is levied. Niger levies USD 48.30 flat rate for both international and regional departures. For Cameroon, the charge structure of USD 24.15 is levied based on Origin/Destination. Interestingly, Togo, does put a charge on transfers and this is set at USD 1.61 (Figure 97).

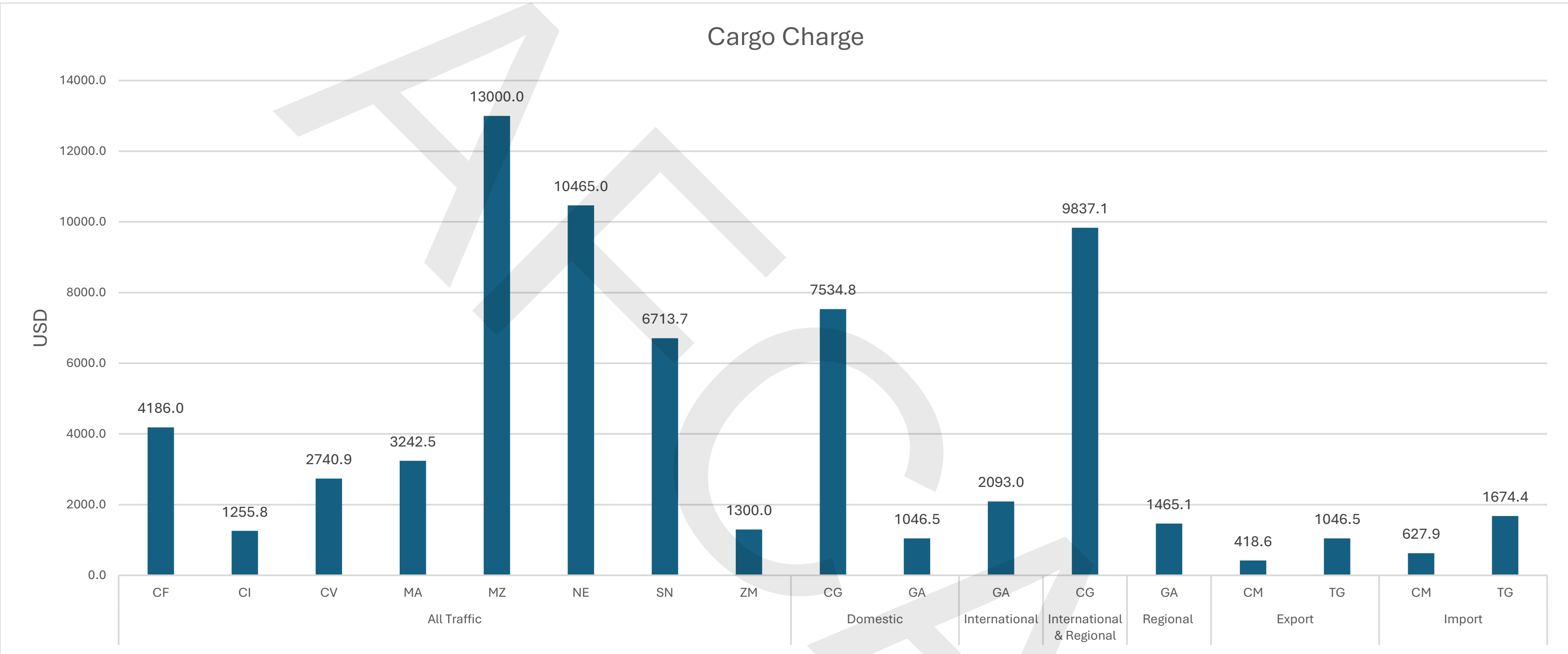


***Note:** The figure presents the unit rates (in USD) applicable for the Development Tax across selected countries and passenger categories. The formula used to compute the charge is: Unit Rate × Total Departing Passengers (PAX). As actual passenger volumes (PAX) cannot be reliably estimated for this analysis, the figure displays only the unit rate values, providing a comparative overview of the applicable charges.*

Figure 97 Development Tax; Source: Author analysis based on ACIC, 2024

Cargo Charges

When it comes to air freight shipping, weight and volume are key factors. Air carriers will charge by either volumetric weight (also known as dimensional weight) or actual weight. Within the study analysis, the cargo charges across the SAATM-PIP states were analysed and the results were tabulated. Figure 98 illustrates the different variations in unit rates and Mozambique emerged with the highest charge rate for all the airports: Nampula Airport (NPL); Beira Airport (BEW) and Maputo International Airport (MPM) and the unit rate factored at 0.10 USD and the average unit rate calculated for the SAATM-PIP states is 0.04 USD.



***Note:** This figure presents the cargo charges applicable in the SAATM-PIP States only, based on calculations using a Boeing 737-8F aircraft with a maximum cargo load capacity of 130 tonnes (130,000 kilograms). The charges are calculated using the following formula: Unit Rate × Cargo Weight (in kilograms).*

Figure 98 Cargo charge; Source: Author analysis based on ACIC, 2024

Tier 2 - Fuel Fees

Figure 99 presents median unit and fixed rates for fuel-related charges, converted to USD, across selected SAATM-PIP States. The analysis reveals that fuel charges remain relatively modest in unit terms, while fixed rates, although sparse in application—can represent a notably higher cost component. These charges are typically imposed on fuel-related services such as throughput, storage, into-plane delivery, and airport infrastructure use related to fueling operations.

Table 37 outlines the key fixed charges related to fuel operations in SAATM-PIP airports. These fixed charges, applied per fueling operation, can significantly influence operational costs—especially for small aircraft or short-haul flights. Understanding these fees is critical for developing fair and efficient fuel pricing policies

Charge Category	Median Fixed Rate (USD)	Explanation
Airport Fuel Fee	USD 45.00	A general fixed levy is imposed by airports for access to fueling infrastructure, apron space, and administrative handling.
Supervision During Refueling	USD 17.97	Covers safety oversight, quality control, and compliance supervision during fueling operations.

Table 37 Key fixed charges related to fuel operations; Source: Author analysis based on ACIC, 2024

These two components together account for over USD60 per fueling event, which is exceptionally high compared to global benchmarks. These fixed charges apply regardless of how much fuel is uplifted, disproportionately impacting:

- Smaller aircraft
- Short-haul operators
- Low-cost and regional carriers

The median unit rates across most categories are extremely low, with several categories—Airport Fuel Fee, Hydrant, Into Plane, and Storage—recording a median unit rate of 0.01 USD per unit, and Throughput slightly higher at 0.02 USD. Transport charges show a median unit rate of 0.00 USD, present only in ZA, of a nominal unit rate of 0.0023 USD. The only fuel-related component with a visibly elevated unit rate is the Concession Fee, with a median of 1.37 USD imposed in MBA and LUN.

The unit-based charges (per litre or ton) are remarkably low, suggesting airports and fuel providers may be offsetting usage fees with high fixed fees. However, most of the actual fuel cost is likely embedded in market fuel price, not reflected here. Hydrant and Into-Plane operations, which involve the physical transfer of fuel, are under-priced or not consistently itemised.

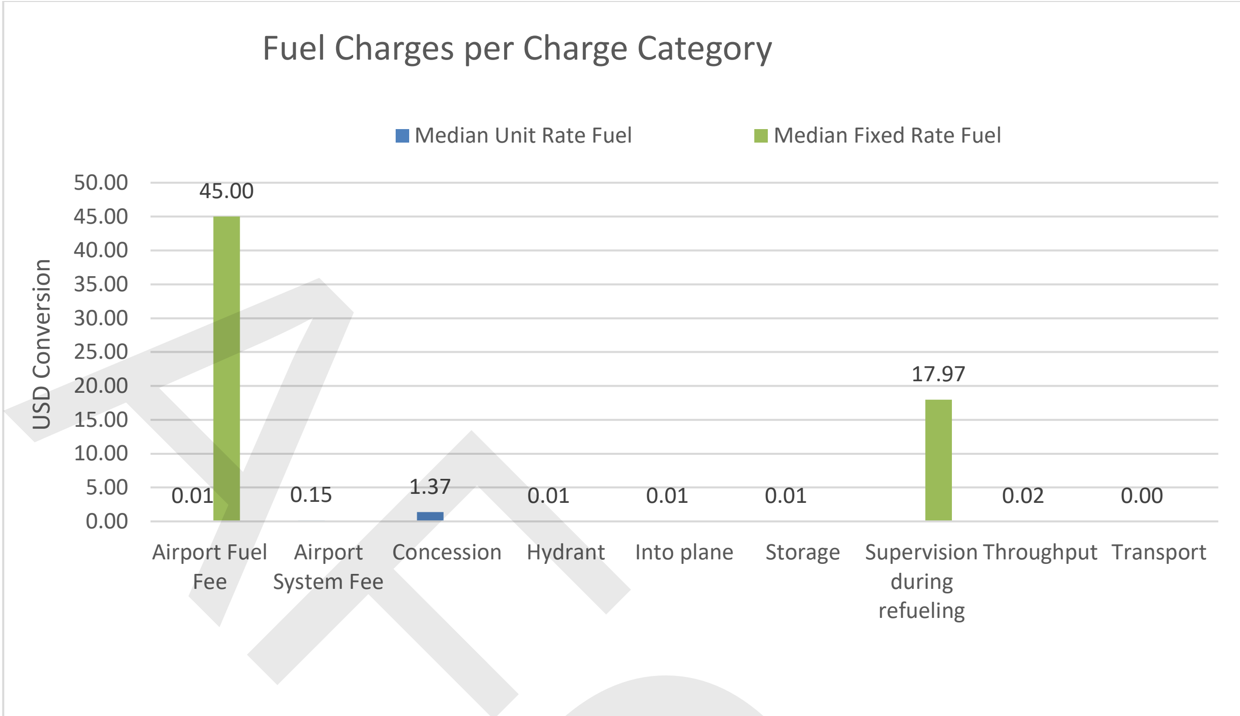
Thus, fuelling economics at African airports rely more on fixed levies than scalable cost-per-use models and larger aircraft or higher-volume refuelling sees lower effective cost per litre but smaller flights are penalised. Here, potential issues can be identified and these include:

- *Opacity*: Fixed fees mask real fuel cost variability and make benchmarking difficult.
- *Non-standard practices*: Fuel pricing structures likely differ widely across airports and regions.
- *Regulatory inefficiency*: Excessive supervision charges hint at possible overregulation or inefficient workflows

In contrast to the general pattern of low unit charges, the fixed rates demonstrate more significant cost implications—but importantly, they are only applied in two country cases across the dataset. Specifically, The Airport Fuel Fee is applied as a fixed charge at Nampula Airport (APL) and Beira and Maputo Airports (BEW, MPM) in Mozambique (MZ), with values segmented by aircraft MTOW.

Similarly, the Supervision During Refueling charge appears only in Cape Verde (CV) across five airports—MMO, RAI, SFL, SNE, and VXE—with a fixed rate of USD 17.97. This reflects a consistent national charging policy for supervision services, regardless of aircraft type.

These fixed fuel charges are, therefore, geographically highly concentrated, applied only in Mozambique and Cape Verde, and do not represent a continental pattern. Their presence in the dataset nonetheless raises important points regarding cost recovery models: whereas most States prefer variable unit rate charge schemes, a few apply flat-rate fees tied to operational thresholds, likely for administrative simplicity or revenue stability.



Note: The figure reflects only the median values of published unit and fixed rates. The total charge will vary depending on the calculation formulas in use, which may include both fixed and unit components depending on the service type and aircraft profile.

Figure 99 Fuel charges per charge category; Source: Author analysis based on ACIC, 2024

Figure 99 displays the median unit rate of fuel-related charges by country code, converted into USD for comparability. This representation specifically excludes fixed fuel charges to maintain visual clarity and focus on variable, per-unit costs. Fixed charges applied in Mozambique (MZ) and Cape Verde (CV)—which were covered in detail in Figure 100.

The data reveals a wide disparity in unit-based fuel pricing structures across the continent. The highest median unit rate is observed in Morocco (MA) at USD 3.652 followed by Cape Verde (CV) at USD 0.791, and Mozambique (MZ) at USD 0.500. indicating that in these jurisdictions, variable components such as airport fuel fee and supervision during refueling are more prominently monetised.

Morocco (MA) has by far the highest fuel charge, over USD 3.60 per unit, which is significantly above the continental average.

- This may reflect:
  - High fuel taxation
  - Infrastructure maintenance fees at fuel depots
  - High-cost airport fuel monopoly or limited supplier competition

Cabo Verde (CV) and Mozambique (MZ) also show elevated fuel charges.

- As island or geographically constrained states, these countries face higher fuel logistics and import costs.
- Smaller economies of scale also contribute to more expensive fuelling per flight.

Moderate Fuel Charges in SAATM-PIP Countries

- Table 38 highlights SAATM-PIP countries with moderate airport fuel charges, based on median unit rates as shown in the comparative chart. These charges are neither excessive nor negligible and may reflect more balanced or transparent cost structures.

Country	Country Code	Fuel Charge (USD)
Ethiopia	ET	0.150
Kenya	KE	0.152
Gambia	GM	0.076

Table 38 Moderate fuel charges in the SAATM-PIP States; Source: Author analysis based on ACIC, 2024

These values suggest relatively affordable fuel handling and access fees. However, slight differences could stem from:

- Whether into-plane, concession, or system fees are disaggregated
- Government price regulation or infrastructure efficiency

Low or Minimal Fuel Charges (≤USD 0.05) in SAATM-PIP Countries

Table 39 list SAATM-PIP countries where airport fuel charges are particularly low—at or below USD 0.05 per unit. These low charges may reflect subsidised pricing, bundled cost structures, or underdeveloped cost-recovery mechanisms.

Country	Country Code	Fuel Charge (USD)
Central African Republic	CF	0.011
Congo (Brazzaville)	CG	0.005
Côte d'Ivoire	CI	0.010
Cameroon	CM	0.003
Ghana	GH	0.005
Niger	NE	0.003
Nigeria	NG	0.001
Senegal	SN	0.034
Togo	TG	0.006
Zambia	ZM	0.037

Table 39 Low or Minimal Fuel Charges (≤ USD0.05) in SAATM-PIP Countries;Source: Author analysis based on ACIC, 2024

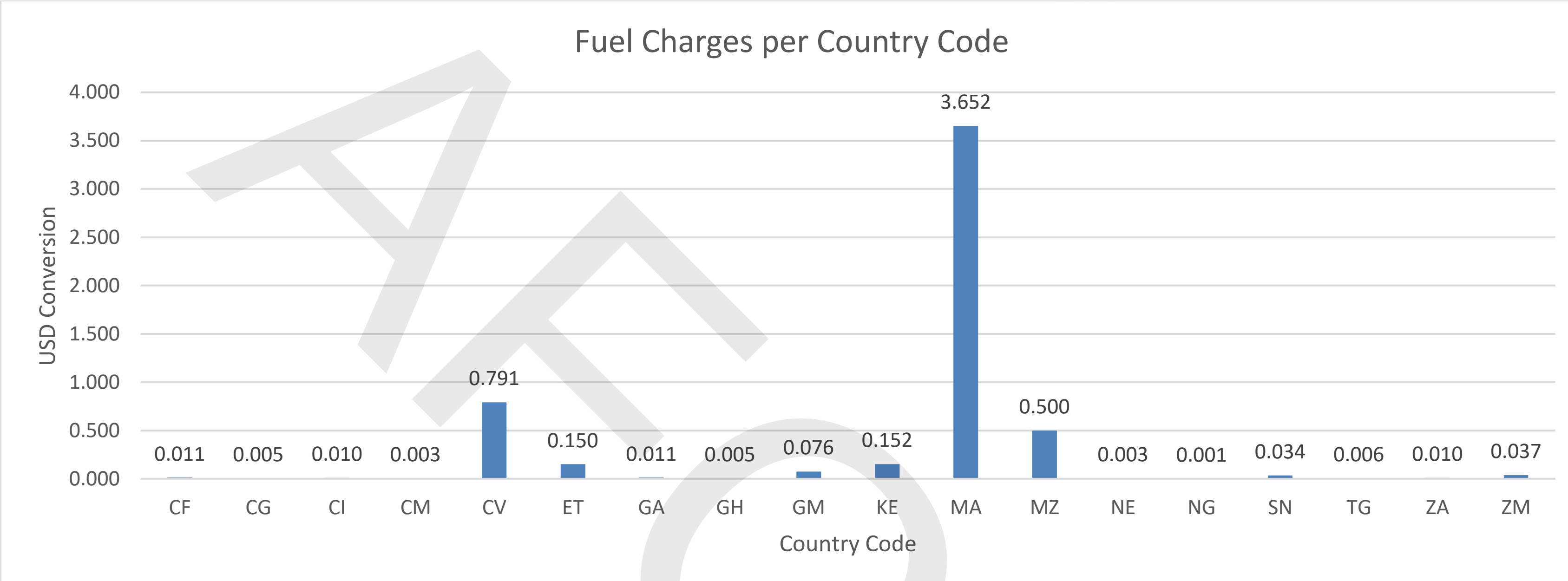
These values are unrealistically low and likely reflect:

- Bundled or subsidised fuel pricing
- Lack of disaggregated reporting (i.e., charges are built into overall fuel price)
- Weak cost recovery at airport fuel stations

However, it is important to note that while low charges may seem favourable to airlines, they could:

- Mask inefficiencies in fuel supply
- Reflect opaque pricing structures
- Discourage private investment in fuel infrastructure

The total median unit rate, at USD 0.014, confirms that fuel-related charges are generally low when expressed per unit, with few outliers skewing the upper range. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport.



Note: The figures reflect only the median values of published unit and fixed rates. The total charge will vary depending on the calculation formulas in use, which may include both fixed and unit components depending on the service type and aircraft profile.

Figure 100 Fuel charges per country code; Source: Author analysis based on ACIC, 2024

Observations and Strategic Implications on Fuel Charges in SAATM-PIP states

Table 40 below presents key observations and strategic implications drawn from an analysis of airport fuel charges within the SAATM-PIP states. It captures continental patterns and outlines recommended focus areas for policy harmonisation and operational reform.

Observation	Implication	Detailed Analysis
Large disparities in fuel charges (from USD 0.001 to USD 3.652)	African fuel pricing is highly fragmented, affecting airline cost predictability	Wide gaps in fuel charges suggest varying degrees of infrastructure development, taxation, and regulation. This fragmentation undermines route planning and costs predictability for operators, especially low-cost and regional airlines.
High charges in North and island nations	Geography, import logistics, and low volume amplify fuel costs	Countries like Morocco and Cabo Verde experience high charges due to reliance on imports, limited storage, and small-scale distribution. This results in inflated costs that disincentivise air travel and affect tourism-dependent economies.
Low charges in West Africa	Suggest subsidies, bundling, or non-cost-recovery pricing models	Several West African countries show near-zero fuel charges, likely due to state subsidies or incomplete pricing breakdowns. While this reduces costs for airlines, it raises concerns about infrastructure underinvestment and lack of transparency.
Few countries have moderate, transparent pricing	These represent good benchmarks for scalable pricing models	Ethiopia, Kenya, and Gambia offer moderate and likely more cost-reflective rates. Their pricing models can be studied and scaled as best practices for harmonised regional frameworks.

Table 40 Observations and Strategic Implications on Fuel Charges in SAATM-PIP states; Source: Author analysis based on ACIC, 2024

The following Table 41 outlines targeted policy recommendations for the African Civil Aviation Commission (AFCAC) and national aviation authorities to address inefficiencies, inconsistencies, and high fixed charges related to airport fuel services.

Issue	Policy Recommendation
High fixed fueling costs	Cap or reduce fuel access and supervision fees to lower cost barriers for smaller operators.
Minimal unit-based variability	Promote volume-based pricing models to encourage fairness and usage efficiency.
Lack of standardisation	Develop a harmonised fuel charge framework across African airports under AFCAC guidance.
Inconsistent transparency	Mandate itemised fuel charge disclosures from airports and fuel providers.

(Note See a detailed recommendation section at the end of this study)*

Table 41 Policy Recommendations for AFCAC and National Authorities on Fuel Charges; Source: Author analysis based on ACIC, 2024

The findings of this fuel analysis reveal that fuelling in SAATM-PIP airports is dominated by high fixed charges, with little attention to usage-based costing. This structure creates inefficiencies and disproportionately impacts smaller operators—undermining the goals of liberalising intra-African air transport under SAATM and AfCFTA. Harmonising and rationalising these charges should be a top priority for aviation regulators across the continent.

Furthermore, the analysis findings highlight a highly inconsistent landscape for fuel charges across SAATM-PIP countries—with some nations imposing heavy costs on fueling operations while others show minimal or opaque pricing. To promote competitive, efficient, and scalable aviation growth, AFCAC must drive pricing reform, transparency, and harmonisation, especially under SAATM and AfCFTA objectives.

Policy Recommendations for AFCAC & Member States

1. Harmonise Fuel Pricing Structures Across the Continent

Fuel charge data from SAATM-PIP countries shows wide disparities, with unit costs ranging from as low as USD 0.001 to as high as USD 3.652. This variation is driven by inconsistent infrastructure development, taxation policies, supply chain bottlenecks, and regulatory gaps. These disparities hinder route planning, airline cost predictability, and regional air market integration.

AFCAC should lead a continent-wide harmonisation effort, beginning with the development of a fuel pricing framework that classifies cost categories (e.g., storage, into-plane, concession, supervision). This framework should guide how airports itemise and report fuel costs, setting standard definitions and

2. Mandate Fuel Charge Transparency and Disaggregation

The lack of transparency is one of the most significant challenges in African airport fuel pricing. In many countries, fuel-related charges are bundled into broader handling or airport fees, making it difficult for airlines to compare costs or assess service efficiency. This opacity fosters market inefficiencies and deters private sector participation in aviation fuel supply chains.

To address this, AFCAC and national aviation authorities should enforce mandatory itemisation of fuel-related charges at all African airports. Each airport operator and fuel service provider should publish publicly available, disaggregated fee schedules that clearly outline unit and fixed charges, taxes, and surcharges. This would increase trust, facilitate benchmarking, and support data-driven policy reform.

3. Promote Cost-Reflective, Volume-Based Pricing Models

The current dominance of high fixed fuel charges (e.g., supervision or infrastructure access) disproportionately affects small aircraft, short-haul flights, and new entrants. These fixed costs do not scale with fuel volume, making it harder for regional carriers and low-cost airlines to compete sustainably.

To counter this, AFCAC should encourage the adoption of volume-based pricing models that reflect actual fuel usage. This approach would promote efficiency, ensure fair cost distribution, and incentivise optimal resource allocation by operators. In parallel, fixed charges should be capped or gradually phased out where unit-based billing can provide similar revenue.

4. *Support Infrastructure Investment Through Public-Private Partnerships*

Several African countries face high fuel costs due to outdated or inadequate infrastructure, including limited storage capacity, inefficient hydrant systems, and lack of into-plane automation. These inefficiencies increase operational delays and raise unit costs, particularly in landlocked and remote areas.

AFCAC should work with development partners (e.g., AfDB, ICAO, IATA) to mobilise investments in aviation fuel infrastructure, especially at strategic airports. This includes promoting public-private partnerships (PPPs) that improve fuel supply chain logistics, reduce losses, and enhance competition among suppliers.

5. *Align Fuel Policy Reform with SAATM and AfCFTA Goals*

Fuel costs directly affect airfare levels, route profitability, and airline survival. As Africa seeks to implement the SAATM and AfCFTA, harmonised and affordable fuel pricing becomes a strategic enabler for unlocking interconnectivity, trade, and mobility.

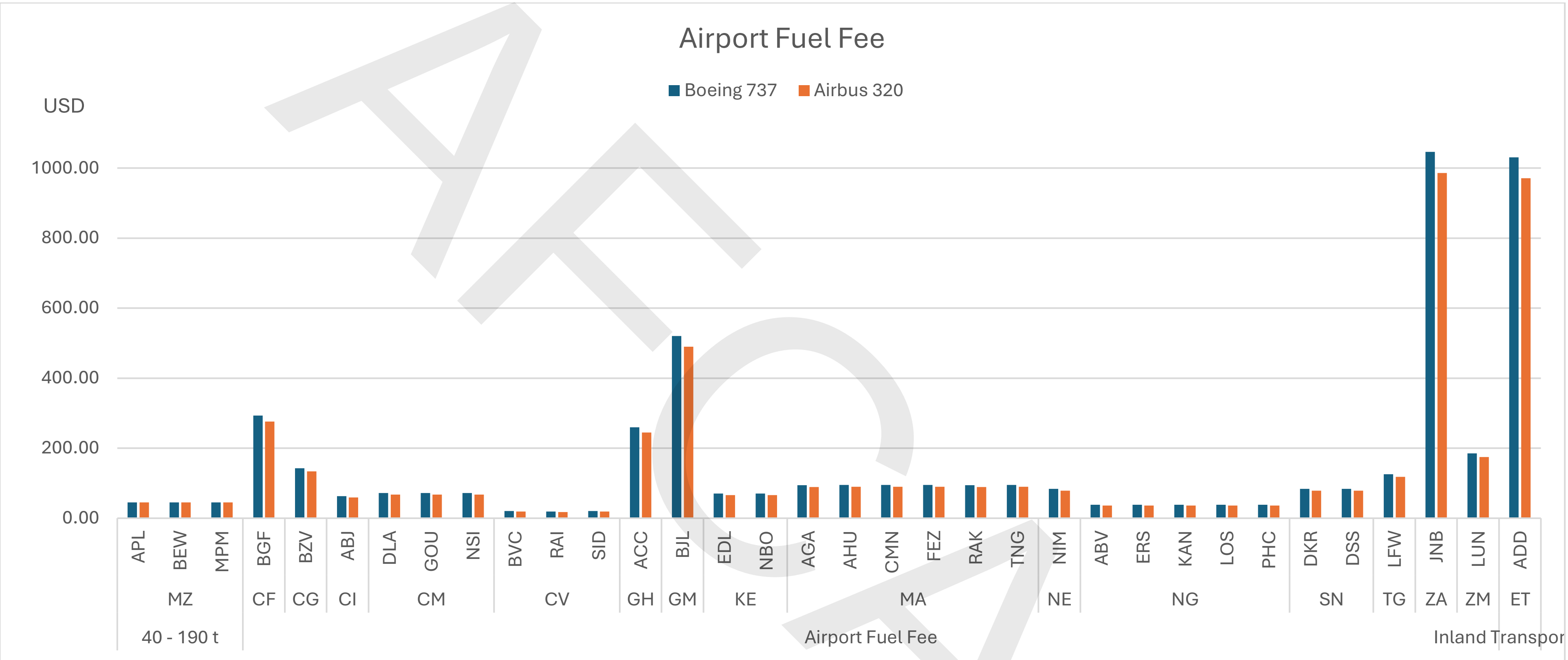
AFCAC should embed fuel pricing harmonisation into the broader regulatory roadmap for SAATM, ensuring that fuel cost structures do not undermine liberalisation efforts. Similarly, member states should treat aviation fuel as a critical enabler of intra-African trade, reviewing tax regimes and levies that inflate fuel costs unnecessarily.

For Africa to realise its full aviation potential, fuel pricing reform must be prioritised. Through harmonised frameworks, transparent practices, cost-reflective models, and infrastructure modernisation, AFCAC and its member states can create a more accessible and competitive air transport sector. These reforms are not only about cost reduction—they are fundamental to achieving continental integration, airline viability, and passenger affordability.

As already highlighted throughout this study, the cost of running an airline business in Africa is significantly high and jet fuel presents a high operational cost for airlines and subsequently spiking the cost of an airline ticket.

Figure 101 presents the total Airport Fuel Fee charges for Boeing 737 (26,000 litres / 6,868.5 US gallons) and Airbus A320 (24,500 litres / 6,472.6 US gallons). The charges are calculated using the formula: Unit Rate × Fuel Consumption. It is important to note that Airport Fuel Fees are not charged in Senegal - CSK. Additionally, a fixed charge structure is applied in Mozambique (MZ), rather than a unit rate-based calculation.

Johannesburg, records the highest total fuel fee charges for a Boeing 737 which stands at USD1046.57 and for the Airbus A320 USD 986.00: This is followed by Addis Ababa – USD 1030.28 and USD 970.89 respectively. Cabo Verde recorded the lowest airport fuel fee for both aircraft types at USD 20.56 and USD 17.61 respectively.



Note: The figure presents the total Airport Fuel Fee charges for Boeing 737 (26,000 litres / 6,868.5 US gallons) and Airbus A320 (24,500 litres / 6,472.6 US gallons). The charges are calculated using the formula: Unit Rate × Fuel Consumption. It is important to note that Airport Fuel Fees are not charged in Senegal - CSK. Additionally, a fixed charge structure is applied in Mozambique (MZ), rather than a unit rate-based calculation

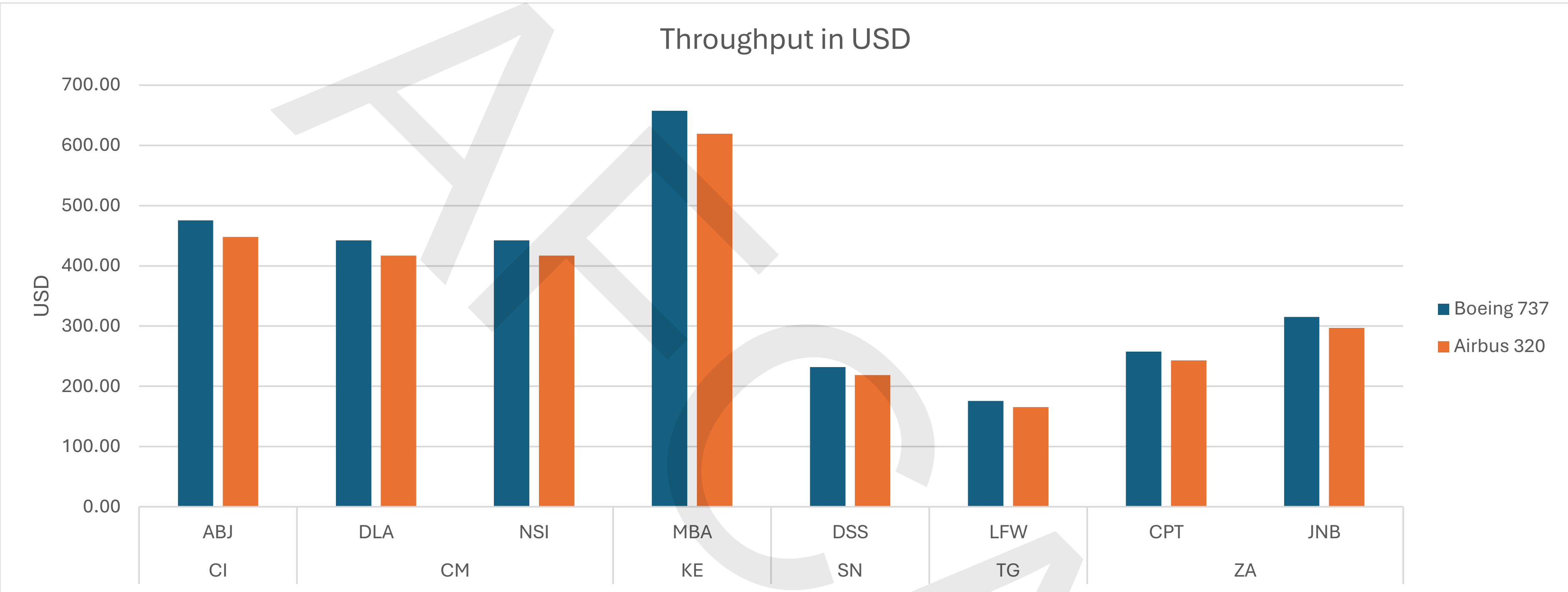
Figure 101 Airport fuel fee; Source: Author analysis based on ACIC, 2024.

Throughput Fees

The fuel throughput fee is the payment (concession) made by fuel suppliers to the airport developer. Notably, fuel-related charges are charged as Airport Operator Charges or Fuel Infrastructure Charges (FIC). In the traditional setting, the fees are set after a consultation agreement between airport operators and airlines, Fuel infrastructure providers charge throughput fees for storage and hydrant infrastructure which are often calculated on the basis of cost divided by volume and adjusted accordingly from time to time. For example, during COVID-19 crisis where volume dropped as much as 70-95% it could mean there was a significant increase in the fee per unit volume (IATA, 2024).

Where fuel throughput fees are imposed, they should be recognised by airport entities as being concession charges of an aeronautical nature. Fuel concessionaires should not add them automatically to the price of fuel to aircraft operators, although they may properly include them as a component of their costs in negotiating fuel supply prices with aircraft operators. The level of fuel throughput charges may reflect the value of the concessions granted to fuel suppliers and should be related to the cost of the facilities provided, if any. Alternatively, consideration may be given, where feasible, to replacing fuel throughput fees with fixed concession fees reflecting the value of the concession and related to the costs of the facilities provided, if any. Where imposed, any such charges or fees should be assessed by airport operators in such a manner as to avoid discriminatory effects, either direct or indirect, for both fuel suppliers and aircraft operators and to avoid their becoming an obstacle to the progress of civil aviation (ICAO, Doc.9082, 2024).

In this study section, Moi International Airport in Kenya exhibited the highest throughput fees for both the Boeing and Airbus A320 aircraft types with the following respective unit rates: USD 657.32 and USD 619.43. Whilst Togo has the lowest throughput fee of USD 175.81 and USD 165.67 respectively (See Figure 102 below). This reflects a sharp contrast in terms of these concession fees, being levied to airline operators.

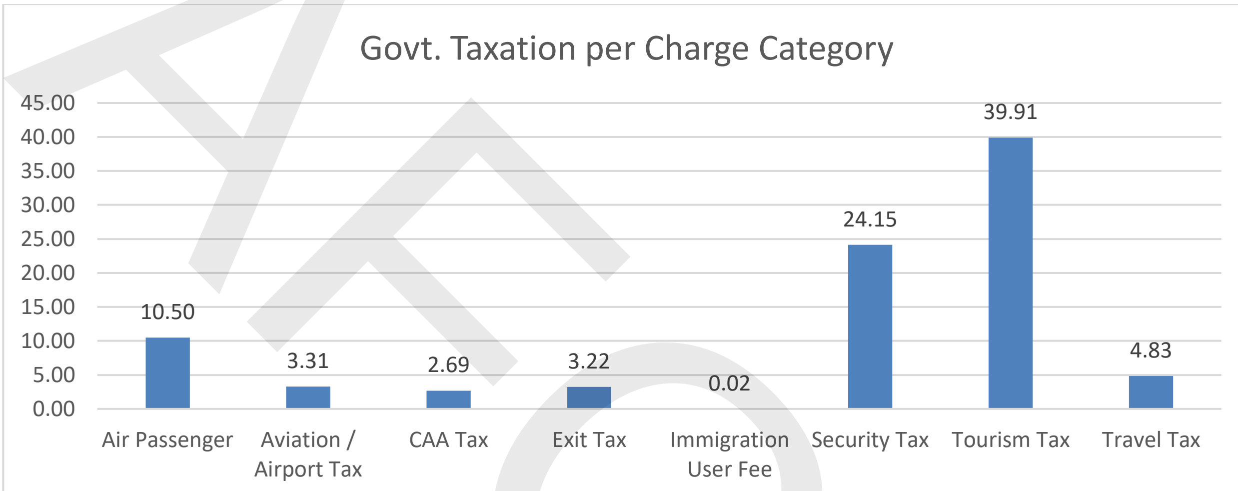


Note: The figure presents the total throughput charges for Boeing 737 (26,000 litres / 6,868.5 US gallons) and Airbus A320 (24,500 litres / 6,472.6 US gallons). The charges have been computed using the formula: Unit Rate × Fuel Consumption.

Figure 102 throughput fees; Source: Author analysis based on ACIC, 2024

Tier 3 - Government Taxes

Figure 103 presents a comparative overview of government-imposed taxation categories applicable to civil aviation operations in the SAATM-PIP States, expressed in terms of median unit rates converted to USD. The figures represent *per-passenger tax levels* (in USD) across charge types typically applied during ticketing or at airports. Only unit rate values are considered, as the dataset does not include fixed-rate structures for government taxes.



Note: The figure visualises only median fixed and unit rates. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport.

Figure 103 Government taxation per charge category; Source: Author analysis based on ACIC, 2024

Among the taxation categories examined, the Tourism Tax reflects the highest median unit rate, recorded at USD39.91. This charge is applied in GM and MA and is typically directed at non-resident passengers. The Security Tax, with a median of USD24.15, is present exclusively in Ghana (GH), and represents the second-highest category in terms of monetary value.

The Air Passenger Tax records a median unit rate of USD 10.50, commonly applied to departing passengers. See Table 42 below.

Top 3 Highest Government Aviation Taxes within the SAATM-PIP States

Table 42 outlines the top three highest government-imposed aviation taxes within the SAATM-PIP states based on per-passenger rates. These charges, while contributing to national revenue or security funding, significantly impact airfare levels and overall travel affordability.

Tax Category	Amount (USD)	Analysis
Tourism Tax	39.91	This is the highest government-imposed charge. Common in tourism-reliant countries, it aims to generate revenue for cultural preservation and national tourism boards. However, it increases the cost of entry for visitors, potentially deterring price-sensitive travellers.

Tax Category	Amount (USD)	Analysis
Security Tax	24.15	Applied to cover airport screening, security infrastructure, and regulatory enforcement. While critical for safety, it can be disproportionately high where duplicated under airport service charges or where transparency is lacking.
Air Passenger Tax	10.50	A general charge on outbound passengers is often used for government revenue rather than aviation infrastructure. Its flat structure impacts all passengers equally, creating a regressive burden for domestic or short-haul travellers.

Table 42 Top 3 Highest Government Aviation Taxes within the SAATM-PIP states; Source: Author analysis based on ACIC, 2024

1. *Tourism Tax –USD 39.91*

   It is evident from Figure 103 that the highest government-imposed aviation charge in the chart is Tourism Tax. This is usually levied on international inbound passengers or embedded in ticket prices. This tax is designed to generate tourism revenue or fund cultural preservation, destination marketing, and support conservation efforts, particularly in nature- and culture-rich countries (e.g., Kenya, Tanzania, Morocco, South Africa). It is also common in destinations with heavy tourism dependency (e.g., island nations, safari zones).

Impact on Travellers:

- While well-intentioned, the tax adds a significant cost burden to travellers, especially those in price-sensitive segments such as backpackers, family tourists, or regional African visitors.
- For short-stay or transit passengers, this charge can feel disproportionate to the duration or value of their visit.

Overall, the tourism tax has a multiplier implication on airlines, too, because it adds to non-service-related cost burdens for airlines, impacting competitiveness.

2. *Security Tax –USD 24.15*

   The Security Tax, with a median per-passenger charge of USD 24.15, ranks as the second-highest government-imposed tax on air travel within the SAATM-PIP states. This charge is generally applied to cover the costs of airport and aviation security services, often passed directly to passengers through airline ticketing or airport levies.

Rationale and Importance:

Security is a non-negotiable component of modern aviation, governed by global standards such as ICAO Annex 17. African airports, many of which operate in politically sensitive or high-risk environments, require robust security protocols to ensure safe operations and international compliance.

Security taxes typically fund passenger and baggage screening, surveillance systems (e.g., CCTV, biometrics) and parameter security etc.

Security taxes help:

- Offset national budget constraints
- Comply with ICAO standards and audits
- Deter smuggling, terrorism, and unauthorised access

In several African countries, aviation security is centralised under government authorities, with civil aviation agencies overseeing and implementing security measures (e.g., Ghana, Cameroon, Uganda and Tanzania), absorbing the cost of national budgets and resulting in lower or no direct tax.

Others outsource airport security to private contractors, justifying a higher per-passenger fee. However, larger hub airports may collect this tax to fund multi-layered security systems, while smaller regional airports collect the same amount with far fewer security assets.

Overall, high security has economic and strategic implications resulting in inflated ticket prices, especially for short-haul or regional routes, where such taxes form a larger percentage of the total fare. Furthermore, passengers often do not distinguish between taxes and fares, blaming airlines for high prices, hurting airline reputations.

The Security Tax, while essential for safe and compliant air travel, must be applied with transparency, efficiency, and fairness. At USD 24.15 per passenger, this charge can significantly influence airfare affordability, especially in African markets that rely on short-haul and intra-continental travel. Aligning this tax with actual service levels and regional standards is key to supporting growth under SAATM and AfCFTA objectives.

3. *Air Passenger Tax – USD 10.50*

The Air Passenger Tax (APT) is a flat fee imposed on passengers, typically collected during ticket purchase or at airport departure points. At a median value of USD 10.50 per passenger, it ranks as the third-highest government aviation tax across the SAATM-PIP countries under observation.

It is often labelled under various names, including Departure Tax, Air Travel Levy, or Transport Infrastructure Tax. This tax is originally intended for aviation infrastructure development, including terminal upgrades, runway maintenance, and regulatory oversight to name a few. However, in many countries, the APT has evolved into a general-purpose revenue tool, disconnected from actual aviation service delivery. In some jurisdictions, the tax is not reinvested in the sector, leading to underfunding of safety and operations, despite the revenue.

Overall, some operation and economic implications may emerge as a result of employing this tax charge on air passenger tickets.

Operational and Economic Implications of the Air Passenger Tax

Table 43 provides a detailed analysis of the operational and economic implications of the Air Passenger Tax (APT), which is typically applied as a flat per-passenger fee. Though often seen as modest, the APT can have wide-reaching effects on travel behaviour, airline strategy, and aviation policy—especially in price-sensitive regional markets across Africa.

Issue	Impact	Analysis
Flat rate structure	Regressive cost impact	The tax applies the same amount to all passengers, regardless of ticket price or flight length. This disproportionately affects travellers on short-haul or low-fare routes, increasing the relative cost of travel.
Non-service-based charge	Perceived as unfair	Unlike user fees tied to services (e.g., security screening), APT is often not linked to any direct benefit or service provided, making it unpopular with travellers and industry stakeholders.
Discourages regional traffic	Hinders SAATM objectives	For intra-African flights, the APT adds significantly to overall costs, reducing affordability and undermining goals to increase regional connectivity.
Opaque allocation of funds	Erodes trust and efficiency	In many countries, APT revenues are not reinvested into aviation infrastructure or services. The lack of transparency can weaken sector confidence and policy effectiveness.

Table 43 operational and Economic Implications of the Air Passenger Tax; Source: Author analysis based on ACIC, 2024

Mid-Tier Government Aviation charge categories

Other categories within the mid-range (Mid-tier taxes) of the distribution include the Travel Tax (USD4.83), Aviation or Airport Tax (USD3.31), CAA Tax (USD2.69), and Exit Tax (USD 3.22). It is noted that the Exit Tax is applied solely in Togo (TG), and the Immigration User Fee, which records the lowest median value of USD 0.02, is reported only in Senegal (SN).

Table 44 below presents a detailed analysis of mid-tier government aviation taxes within the SAATM-PIP States each with a moderate per-passenger rate. While individually less burdensome than top-tier taxes, these fees collectively contribute to the rising cost of air travel across the continent. Their purpose and efficiency vary widely by country and require better integration with national aviation strategies.

Tax Category	Amount (USD)	Analysis
Travel Tax	4.83	Typically applied to international departures or all ticketed journeys, often bundled into overall ticket cost. Intended to support tourism, transport, or civil administration, but usually not itemised clearly.
Aviation/Airport	3.31	This fee may support general airport operations, regulatory oversight, or infrastructure development. Its application and visibility vary by country, with

Tax Category	Amount (USD)	Analysis
Tax		some airports rolling it into broader passenger charges.
Exit Tax	3.22	Charged at airport departure points, sometimes manually. While relatively low, it is unpopular due to a lack of transparency and limited justification. Infrequently waived even for transit passengers.
CAA Tax	2.69	Levied to fund CAA operations such as licensing, audits, or compliance monitoring. Should be clearly disclosed and managed under ICAO cost-recovery principles.

Table 44 Mid-Tier Government Aviation Taxes;

Source: Author analysis based on ACIC, 2024

Negligible Fee: Immigration User Fee –USD 0.02

This is an unrealistically low charge, possibly symbolic or subsidised as reflected in the User Fee in Senegal. Alternatively, immigration costs may be fully absorbed by government budgets, not directly passed to passengers.

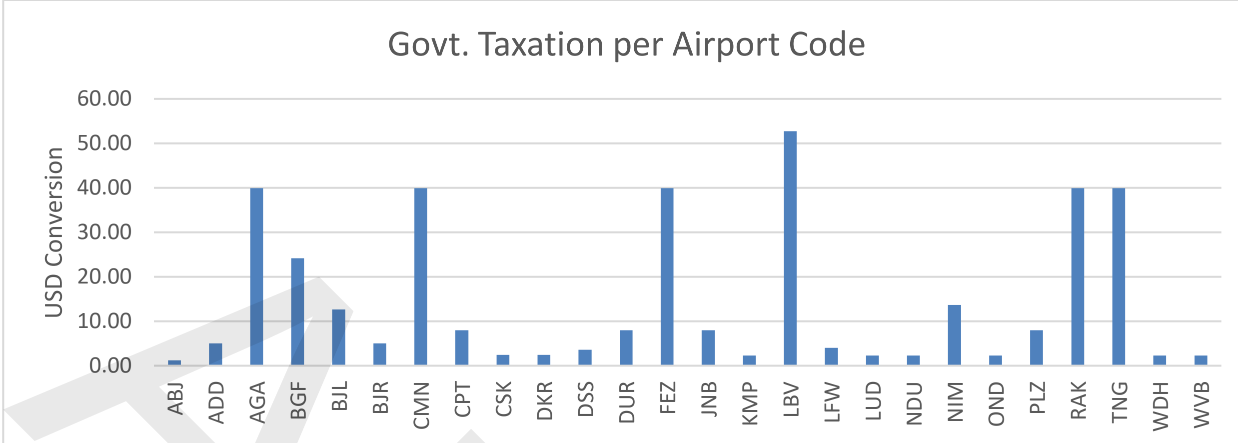
Table 45 provides a detailed analysis of the Immigration User Fee as observed in the SAATM-PIP States aviation taxation structures. Although this fee is categorised as negligible at USD 0.02 per passenger (Senegal), understanding its function and implications is critical to aviation policy design, especially in aligning cost recovery with national immigration and border security operations.

Tax Category	Amount (USD)	Analysis
Immigration User Fee	0.02	This symbolic or subsidised fee reflects the government's absorption of immigration service costs or the presence of external donor support. It may cover passport control, border surveillance, and customs inspection costs at airports. The extremely low charge may indicate a policy choice to minimise barriers to international travel or underreporting due to bundling with other airport or passenger service charges.

Table 45 Immigration User Fee; Source: Author analysis based on ACIC, 2024

The calculated overall median unit rate across all government taxation categories is USD 6.78. This value provides a general indication of the scale of passenger-based government taxation within the region, though individual country practices vary in terms of structure, scope, and application.

Figure 104 presents the median unit rate of government-imposed taxes across selected airport codes within the SAATM-PIP States, expressed in USD. The analysis reflects only unit-based taxation.



Note: The figure visualises only median fixed and unit rates. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport.

Figure 104 Government taxation per airport code; Source: Author analysis based on ACIC, 2024

The highest recorded median unit rate is found at LBV (Libreville Airport, Gabon), with a value of USD 52.71. This elevated rate is attributed to the application of an Air Passenger Tax, which in Gabon is differentiated by type of traffic (e.g., domestic, regional, international) and by passenger class (e.g., economy, business, first class), leading to a higher aggregated median.

The next group of airports with the highest government tax rates are located in Morocco (MA)—specifically AGA, CMN, FEZ, RAK, and TNG—each reporting a median of USD 39.91. This level reflects the presence of a Tourism Tax, which is applied to international passengers and also varies by class of travel, resulting in consistently elevated unit charges across these airports.

Table 46 below shows a detailed analysis of airports where government-imposed aviation taxes exceed USD35.00 per passenger. These charges typically include tourism levies, security surcharges, and infrastructure fees. High taxation levels, especially at major international hubs and tourism-driven airports, can have significant implications for affordability, competitiveness, and regional connectivity.

Airport Code	Location	Estimated Tax (USD)	Key Tax Components	Implications
LBV	Libreville, Gabon	52	Tourism, security, solidarity levies	Highest cost in dataset; may restrict tourism and business travel
AGA	Agadir, Morocco	40	Tourism tax, infrastructure fee	High for a tourism hub; could deter repeat or regional visitors
CMN	Casablanca, Morocco	40	Security, infrastructure, customs	Challenges Casablanca's competitiveness as a transit hub
FEZ	Fez, Morocco	40	Safety, security, civil aviation fees	Impacts affordability for regional and low-cost carriers
RAK	Marrakesh, Morocco	40	Tourism and local development charges	May discourage short-haul travel within Africa
TNG	Tangier, Morocco	40	Regional taxes, security, tourism levy	Similar impact as Marrakesh; burdensome for regional travel

Table 46 High-Tax Airports (above 35 USD); Source: Author analysis based on ACIC, 2024

These airports impose some of the highest government-related taxes on passengers in Africa. The high tax rates estimated above USD 35 per passenger can significantly impact airfare pricing, regional competitiveness, and passenger volumes.

Africa's high-tax airports, mostly tourism hubs and major city gateways apply government-imposed levies that can drive up airfare prices and weaken air transport competitiveness**.** While these fees often support valid infrastructure or tourism programs, their cumulative impact necessitates transparency, regional benchmarking, and reform**,** especially under SAATM and AfCFTA frameworks.

Mid-Tier Government Tax Airports (USD10–20)

Table 47 below provides a detailed analysis of African airports that fall into the mid-tier tax bracket, where government-imposed aviation taxes range between USD 10 and USD 20 per passenger. These charges typically include moderate security fees, infrastructure levies, and regulatory surcharges. Such airports offer a more balanced taxation environment, but even moderate charges can impact price-sensitive travellers and regional connectivity.

Airport Code	Location	Estimated Tax (USD)	Key Tax Components	Implications
NIM	Niamey, Niger	12	Passenger safety and customs charges	Reasonable for an island economy, but affects short-haul affordability
BJL	Banjul, The Gambia	12	Departure fee, security charge	Common tourist destination; tax could be burdensome for budget travellers

Table 47 Mid-Tier Tax Airports (10-20 USD); Source: Author analysis based on ACIC, 2024

Mid-tier tax airports represent moderate government-imposed passenger fees**,** typically ranging between USD10 and USD20 per traveller. These charges are generally not excessive but still significant enough to impact low-cost carriers and price-sensitive passengers**,** especially on short-haul or regional routes.

Other notable values include BGF (Bangui M'Poko Airport, Central African Republic) at USD 24.15, and NIM (Niamey Airport, Niger) at USD13.69, both reflecting higher tax levels relative to the regional median.

In contrast, the lowest median unit rate is recorded at ABJ (Abidjan, Côte d'Ivoire), with a value of USD1.21, indicating a comparatively lower incidence of government taxes per departing passenger at that airport.

Low-Tax Airports (Below USD 5)

Table 48 presents an analysis of airports categorised as low-tax based on estimated government-imposed aviation fees below USD5 per passenger. These minimal charges may result from subsidies, bundling of charges, or limited infrastructure development. While they promote affordability, they may also reflect a lack of cost recovery or transparency in pricing structures.

Airport Code	Location	Estimated Tax (USD)	Key Tax Components	Implications
ABJ	Abidjan, Côte d'Ivoire	1.2	Minimal or bundled airport tax	Affordable for travelers but may underfund airport operations or security
DKR	Dakar, Senegal	2.4	Basic processing and admin fee	Supports affordability; could improve competitiveness if made more transparent
WDH	Windhoek, Namibia	2	Simplified passenger charge	Promotes regional access; potential to attract carriers if maintained

Table 48 Low-Tax Airports (below 5 USD); Source: Author analysis based on ACIC, 2024

Government Taxation per Airport Code

Table 49 below provides a detailed breakdown of government taxation levels per airport code in Africa. The values represent estimated government-imposed charges per passenger in USD, based on data visualisation. Airports with high taxation levels may reflect local tax policy, infrastructure funding needs, or tourism-related surcharges.

Airport Code	Estimated Govt. Tax (USD)	Observations / Commentary
LBV	52.00	Highest taxation observed; likely includes multiple passenger fees, security, and tourism taxes.
AGA	40.00	Major Moroccan airport; includes security and tourism levies common to North Africa.
CMN	39.00	Casablanca hub with layered taxes likely due to international and tourism traffic.
RAK	39.00	Popular with tourists; taxes may include local and regional levies.
TNG	39.00	Another Moroccan airport reflecting national tourism tax policy.
BJL	12.00	Moderate charges; may reflect simplified airport tax structure in The Gambia.
BGF	24.00	Relatively low charges possibly reflecting state subsidies or low passenger volume.
PLZ	8.00	Port Elizabeth airport in South Africa; likely includes national and municipal fees.
Other Airports	< 5.00	Most others show minimal government taxation, possibly due to bundling or subsidy.

Table 49 Government Taxation per Airport Code; Source: Author analysis based on ACIC, 2024

Analysis of Median Government Aviation Tax per Airport in Africa

The overall median government taxation rate per airport, across all included entries, stands at USD6.78. This provides a general benchmark for comparison, although it is important to note that the level and composition of government taxation vary by country, airport, and policy framework.

The following section delivers a detailed analysis of the overall median government taxation rate per airport in SAATM-PIP states, based on available data. The median rate offers a critical reference point for evaluating the balance between affordability, competitiveness, and fiscal sustainability across the continent's aviation hubs. It reflects a midpoint value in the distribution, meaning half of the airports impose taxes below this level and half above. It offers a more realistic picture than the average because it minimises the influence of outliers such as extremely high or low tax rates.

Implications of a USD 6.78 Median Tax Level

1. Moderately low Tax Burden:

Compared to global norms, a median of ~ USD 7 is relatively low and supports baseline affordability, especially on short-haul routes.

2. Signals Disparity:

The large gap between the highest and lowest taxed airports signals significant disparity in national and regional taxation policies within the observed SAATM-PIP states.

3. Accessibility vs. Sustainability:

Low taxation supports passenger access but raises concerns about long-term funding for aviation infrastructure, safety, and oversight.

At regional level, we can deduce some interesting insights as presented in Table 50 below.

Region	Trend
West Africa	Wide variation; some airports fall well below median, while others exceed due to regional levies
North Africa	Generally, above median due to tourism and security charges
Southern Africa	Mixed: large hubs (e.g., JNB) above median, smaller cities closer to or below
Island States	May fall above median due to isolation and limited air service options
Central Africa	Notable outliers (e.g., Libreville) significantly raise the upper end of the spectrum

Table 50 Trends by regional level; Source: Author analysis based on ACIC, 2024

Table 51 below summarises some policy recommendations and more detailed recommendations are found in the final section of this study.

Focus Area	Recommendation
Benchmarking	Use USD 6.78 as a soft benchmark to evaluate whether an airport's tax regime supports affordability and competitiveness
Harmonisation	Encourage member states to align taxes within a USD 5–10 median range, ensuring equity
Exemption Zones	Consider lower tax rates for SAATM corridors or intra-African routes to stimulate regional connectivity
Fiscal Transparency	Require public disclosure of government-imposed taxes and their intended use to ensure trust and accountability

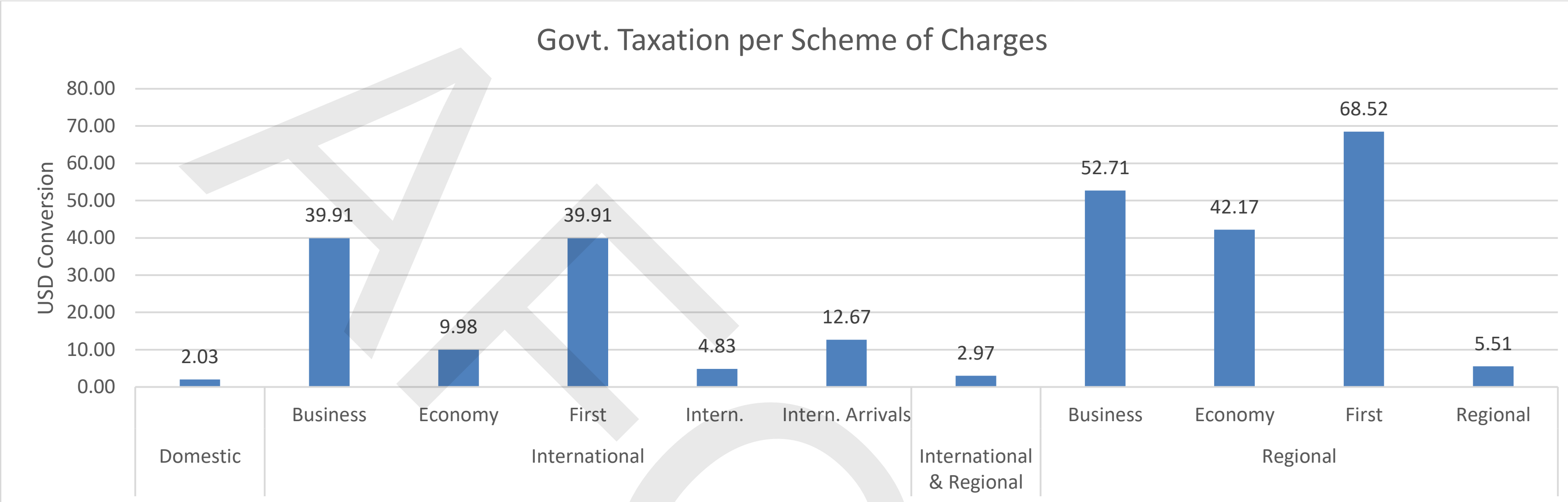
Table 51 Recommendation by focus area; Source: Author analysis

The overall median aviation tax of USD 6.78 per airport suggests that many African countries are attempting to balance accessibility with revenue needs. However, the wide disparity in taxation levels calls for greater harmonisation and policy coherence. The median value can serve as a baseline reference for aligning national practices with regional objectives under SAATM and AfCFTA.

The findings presented in this section, also underscores the lack of uniformity in aviation tax policy across Africa. While some hubs impose substantial charges potentially impacting affordability and competitiveness, whilst others maintain minimal tax burdens to support accessibility. Thus, harmonisation and transparency of tax structures will be key for effective implementation of SAATM and AfCFTA initiatives.

Figure 105 displays the median unit rate of government-imposed taxes by scheme of charges, classified by traffic type (domestic, international, regional) and passenger class (economy, business, first), with all values expressed in USD. The values indicate how taxation policies vary significantly depending on whether a passenger is travelling domestically, regionally, or internationally and by service class (economy, business, or first class).

(See also Table 53 Summary Table on Scheme of Charges at the end of this section)



Note: The figure visualises only median fixed and unit rates. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport.

Figure 105 Government taxation per scheme of charges; Source: Author analysis based on ACIC, 2024

The analysis indicates that regional operations for higher travel classes are associated with the highest taxation levels in the dataset. Specifically, the median unit rate for first-class regional passengers is the highest overall at USD 68.52, followed by regional business class at USD 52.71 and regional economy class at USD 42.17. These values suggest a greater fiscal burden on premium-class passengers within intra-regional markets.

Empirical analysis of aviation charges across African countries reveals a consistent trend: taxation increases progressively with travel class, especially on regional routes. Among all categories analysed in this study, regional first-class passengers bear the heaviest tax burden with a median of USD 68.52, followed by regional business class (USD 52.71) and regional economy class (USD 42.17). These values surpass those seen in international or domestic segments, indicating a tiered pricing structure disproportionately impacting short- and medium-haul regional premium passengers.

Within the context of the African aviation landscape, this disparity in taxation levels highlights a structural inconsistency: regional premium travel (i.e., business and first class) is taxed at a higher absolute rate than longer international journeys or domestic flights. This outcome is counterintuitive from a cost-recovery perspective, as shorter flights typically utilise fewer resources per passenger.

Comparative Examples:

- A regional first-class ticket may attract a USD 68.52 tax, whereas an international business class fare faces just USD39.91.
- Domestic routes, despite using the same airport infrastructure and navigation services, may carry taxes as low as USD 2.03: The implications within the African market includes:

- Short-Haul regional penalty

Intra-African routes, which are already limited by poor connectivity and low flight frequencies, are further burdened by disproportionately high per-kilometer taxation. This penalises the category of travel that is vital for diplomatic, corporate, and trade-related mobility under AfCFTA.

- Perverse pricing outcomes

A traveller flying from Lagos to Accra (under 1 hour) in business class may pay more in taxes than one flying from Nairobi to Dubai. This makes longer international routes more financially attractive, reducing the incentive to build regional linkages.

- Distorted elasticity impact

Premium regional travellers, such as government officials and investors, are vital to economic integration. Over-taxation reduces demand and encourages a modal shift to road or private charter.

- Regulatory Arbitrage and Inefficiencies

The absence of distance-adjusted pricing models leads to a flat tax system misaligned with ICAO principles, making regional services less scalable and economically viable.

It is also imperative to note the policy and operational implications of high taxation on regional premium classes. See Table 52 below.

Observation	Implication
High taxes on regional first/business class	Disincentivises regional connectivity for corporate and high-income segments
Disparity between regional and international taxes	Suggests non-cost-based pricing and a lack of harmonised fee structures
Uniform application of taxes per passenger	Results in regressive pricing, especially for short-haul trips in high classes
Lack of proportionality to route distance	Violates ICAO's cost-relatedness principle and hinders mobility under SAATM

Table 52 Policy and Operational Implications;

Source: Author analysis based on ACIC, 2024

Rationale for Tiered Disparity

- *Price Elasticity of Demand*

Passengers in premium classes generally exhibit lower price sensitivity. Governments and airports may exploit this inelasticity by levying higher fixed taxes and fees, assuming premium travellers are less reactive to cost increases.

- *Revenue Optimisation*

Higher per-capita taxation on fewer premium passengers allows for greater revenue extraction with less risk of public backlash. Such taxes are often absorbed by corporations or high-net-worth individuals.

- *Regulatory Arbitrage*

In the absence of distance-based pricing, fixed fees constitute a larger share of the ticket price on short-haul regional trips, inflating the effective taxation rate for premium classes disproportionately.

From the Tier 3 (Government Taxes) perspective, these values mentioned above suggest that African taxation regimes are not dynamically scaled to route economics or class sensitivity. This leads to pricing distortion, where governments maximise per-head tax revenue at the expense of disincentivising essential regional business travel—a critical component for AfCFTA and SAATM success.

However, the analysis within the international segment also highlights interesting observations.

In the international segment, the median unit rates for first-class and business-class passengers are both recorded at USD 39.91, while the rate for the international economy is significantly lower at USD 9.98. International arrivals show a median value of USD12.67, and generic international departures not disaggregated by class are recorded at USD 4.83.

In the international segment of African aviation taxation, a clear differentiation exists based on passenger class. Both first-class and business-class travellers face a uniform median unit rate of USD 39.91, highlighting a flat-rate approach to taxing premium service classes irrespective of distance or carrier. In contrast, international economy passengers are taxed significantly less, with a median rate of USD 9.98, reflecting a modest attempt at progressive pricing. Additionally, international arrivals incur a median fee of USD 12.67, potentially encompassing immigration, security, and tourism-related charges. Generic international departures, not disaggregated by class, are taxed at a much lower USD 4.83, indicating that some countries apply flat, bundled exit charges. This structure underscores a pricing philosophy that places a heavier burden on premium passengers while maintaining relative affordability for economy travellers and yet still adds notable cumulative costs for long-haul travel.

The domestic traffic category exhibits the lowest overall median tax level at USD 2.03, indicating that government-imposed levies are less prevalent or lower in magnitude within national aviation markets.

This minimal taxation suggests that government-imposed levies are either less prevalent or significantly reduced within national air transport frameworks. The rationale behind this could stem from multiple factors: governments may aim to promote domestic connectivity, especially in large or underserved countries where aviation fills critical mobility gaps; there may also be political sensitivity around taxing local citizens for internal movement. Additionally, some domestic taxes might be subsidised, absorbed into broader infrastructure funding, or simply not itemised separately, leading to underreported figures. While this approach supports affordability and accessibility for domestic travellers, it may also indicate a trade-off between cost recovery and developmental objectives, raising questions about the sustainability of underpriced domestic air travel if infrastructure and regulatory costs continue to grow.

The combined international and regional category, where the government taxation is undifferentiated between the two traffic types (Government does not differentiate tax policy between regional and international traffic) shows a median unit rate of USD 2.97.

This distribution highlights a consistent pattern of tax escalation by class of service and geographic scope, with international and regional first- and business-class passengers subject to the highest unit rate taxes. Conversely, domestic passengers and those in undifferentiated categories experience a relatively lower level of government taxation.

Overall, this undifferentiated approach may arise from simplified regulatory frameworks, where a single flat fee is applied regardless of route length, destination type, or economic rationale. While such uniformity can simplify tax collection and administrative procedures, it risks misaligning costs with actual service delivery and demand characteristics. For example, international flights generally incur higher security, immigration, and navigation service costs compared to shorter regional flights. By applying the same charge across both categories, states may either under-recover costs on long-haul international routes or over-burden short regional sectors, potentially distorting passenger behaviour and route economics. Furthermore, this aggregation limits the ability to conduct granular policy analysis or adjust fiscal levers in support of strategic goals like SAATM or intra-African trade facilitation. It underscores the need for disaggregated, data-driven taxation policies that reflect the functional and economic distinctions between regional and international air transport in Africa.

Scheme of Charges	Tax (USD)	Insights
Domestic	2.03	Lowest taxed category; suggests state subsidies or cost absorption for local travelers.
International - Business	39.91	High flat tax rate targeting premium travelers; likely includes multiple surcharges.
International - Economy	9.98	Lower than business but still adds a meaningful cost to regional mobility.
International - First	39.91	Same as business, reinforcing a high fixed tax model for premium passengers.
International Departures	4.83	Standard exit charge; generally bundled in ticket price.
International Arrivals	12.67	Higher than departures; may include tourism and entry processing fees.
International & Regional	2.97	Appears to be a blended or corridor-specific fee.
Regional - Business	52.71	Among the highest; raises affordability concerns for inter-African travel.
Regional - Economy	42.17	High for economy class, creating barriers for middle-income regional travelers.
Regional - First	68.52	Highest observed; points to layered taxes applied on luxury segments.
Regional (unspecified)	5.51	Likely a general charge for regional connectivity; may vary by country.

Table 53 Summary Analysis of Government Taxation by Scheme of Charges; Source: Author analysis based on ACIC, 2024

Summary of Key Observations

- Taxes on regional and international routes are considerably higher than domestic routes, with domestic charges as low as USD 2.03

- Business and first-class travellers bear significantly higher tax burdens, especially on regional routes (up to USD 68.52 for first class).

- Economy travellers are taxed less but still face steep charges on regional routes (USD 42.17), which can undermine affordability.

- International arrivals and departures face moderate but notable charges (USD 4.83–12.67), adding to ticket costs regardless of origin.

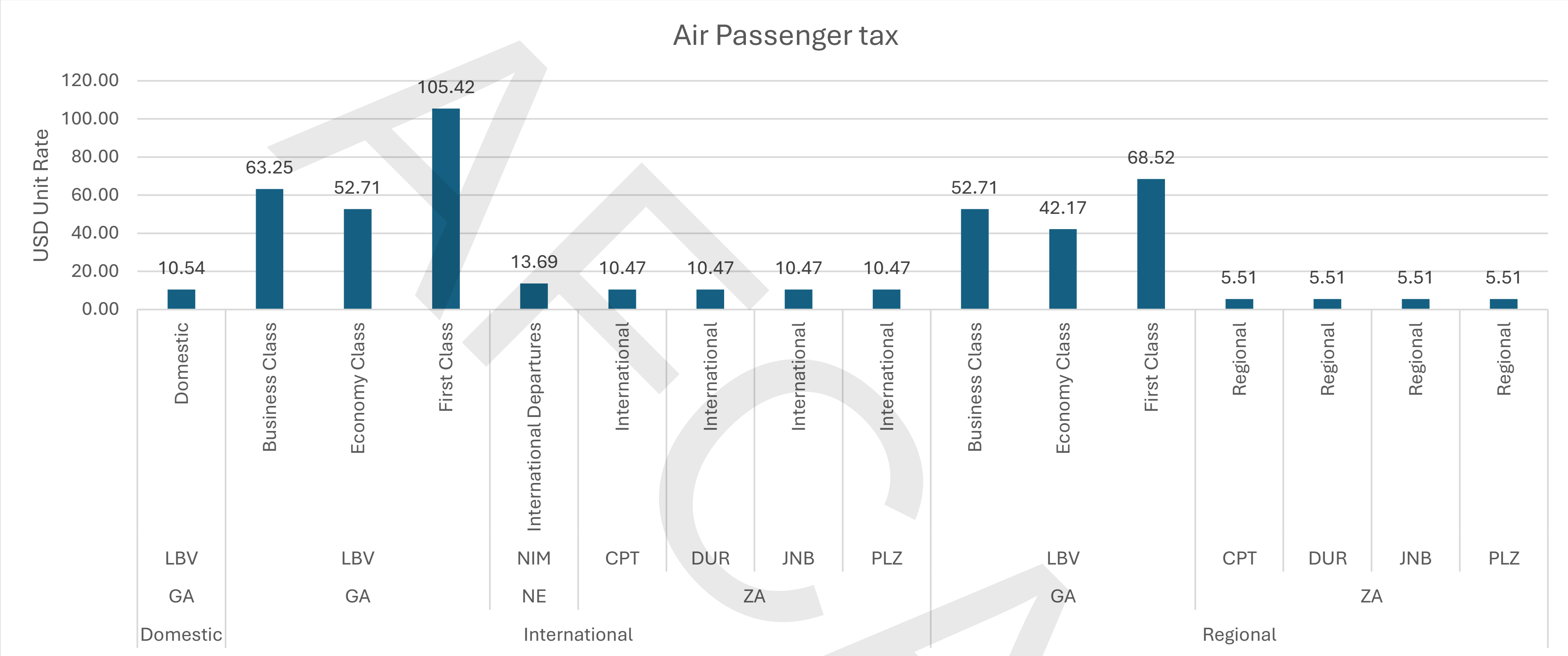
Finally, finding that regional premium passengers are the most heavily taxed in African aviation underscores a misalignment between fiscal policy and air transport strategy. While effective from a revenue standpoint, this model disincentivises regional mobility and contradicts integration objectives under SAATM and AfCFTA. A move toward differentiated, distance-adjusted, and class-sensitive taxation is essential for a more competitive and inclusive air transport ecosystem in Africa.

Government taxation in African aviation presents a complex and uneven landscape, marked by significant variations in tax rates across travel classes, routes, and countries. While some governments have implemented minimal levies—particularly on domestic routes—to encourage accessibility and national mobility, others impose high, often flat-rate taxes on premium regional and international passengers, which can hinder connectivity and economic integration. The lack of standardisation, transparency, and alignment with ICAO's cost-relatedness principles contributes to inefficiencies and inequities that disproportionately impact short-haul and intra-African travel core priorities under the SAATM and the AfCFTA. To ensure a fair, sustainable, and growth-enabling aviation ecosystem, African states must pursue harmonised, class-sensitive, and distance-adjusted taxation policies rooted in data, transparency, and regional cooperation.

As already demonstrated in this study, Taxes charges and fees charged on African air tickets are higher than what airlines in other continents charge and are inhibiting air transport on the continent.

Air Passenger Tax

Air passenger taxes are taxes that are exercise duties and other charges levied by the African governments on most passengers departing by air, either in addition to the price of the airline ticket or incorporated into the ticket price. This is typically collected via the National Revenue Authorities. Various groups of countries in Africa have adopted preferential taxes and fee rates for travel among their members. ECOWAS and CEMAC are example: In this study analysis, Gabon had the highest air passenger tax for First Class passengers instituted at USD 105.42, and USD 63.25 for Business Class, followed by USD 52.61 for Economy Class passengers. This ranked Gabon the highest within the SAATM-PIP states under analysis. At Regional level, Gabon still commands a high passenger tax unit tax rate for all passenger classes: First Class – USD 68.52; Business Class – USD52.71 and Economy – USD42.17. At domestic level, again Gabon is the only country within the SAATM-PIP states that levies a domestic passenger tax of USD 10.54. South Africa levies USD 5.51 for domestic passengers but zero rates for international passengers, which makes it the lowest rate within the SAATM-PIP states. See Figure 106 below.

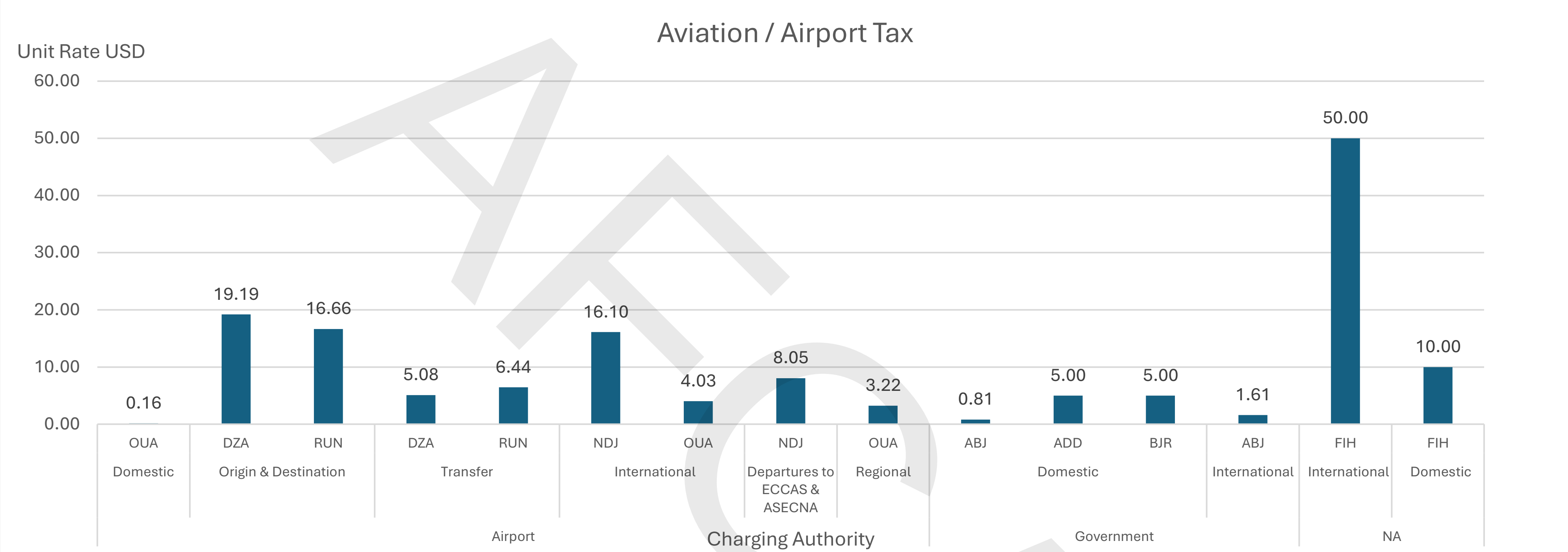


Note: *This figure visualises the unit rate in USD conversion for Air Passenger Tax. The calculation is based on a formula that applies the unit rate per arriving and departing passenger (PAX). As actual passenger volumes (PAX) cannot be reliably estimated for this analysis, the figure displays only the unit rate values, providing a comparative overview of the applicable charges.*

Figure 106 Air passenger tax; Source: Author analysis based on ACIC, 2024

Aviation/Airport Tax

Since, in Africa there is no standard tax rate on airport taxation, charging authorities also vary across the continent. This typically could either be the Airport operator or the Government (See Figure 107 below). N'djili Airport (FIH) in the Democratic Republic of Congo, has the highest Airport tax of USD 50.0 within the SAATM-PIP states. The government stipulated tax in Abidjan Cote d'Ivoire is the lowest with a unit rate of USD 1.61 for international departures. Chad, N'Djamena International Airport (NDJ), has a flat rate of USD8.05 for all departures to and from ECCAS and ASECNA.

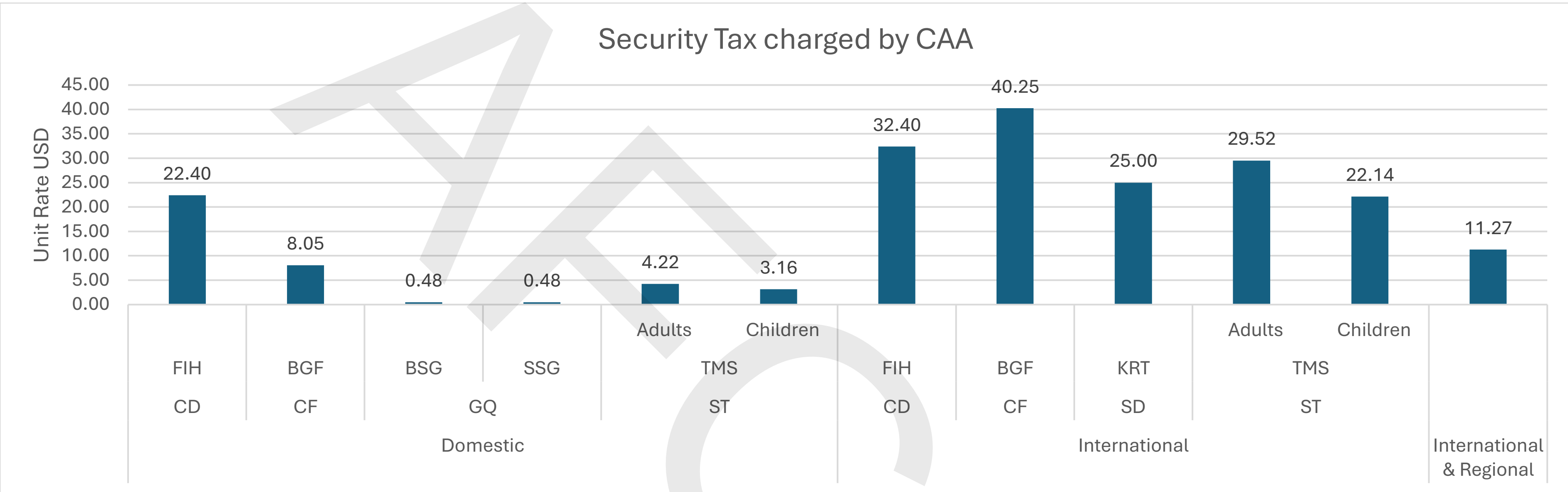


Note: The figure illustrates the unit rates (expressed in USD) applicable to airport taxes across various African countries and airports. The formula for computation is Unit Rate × Total Departing Passengers (PAX).
The Pilot Implementation Program airport codes presented in the figure correspond to the following: CI – ABJ (Abidjan), ET – ADD (Addis Ababa), ET – BJR (Bahir Dar).
Where the charging authority is indicated as "NA", it signifies that the ACIC data set does not provide specific information on the responsible charging authority for that particular location.
The following additional comments and classifications are provided to facilitate accurate interpretation of the airport tax categories: CI – ABJ: referred to as a Municipal Tax, ET – ADD: referred to as an Airport Departure Tax, ET – BJR: referred to as an Airport Departure Tax, YT – DZA: referred to as a Safety and Security Tax, CD – FIH: referred to as an Infrastructure Development Fund (IDEF), TD – NDJ: The airport tax for domestic flights has been suspended, BF – OUA: referred to as "Taxe d'usage de titre de transport".

Figure 107 Aviation/Airport tax; Source: Author analysis based on ACIC, 2024

Security Tax charged by the CAA

Based on the analysis presented in this study, it emerged that the Central African Republic's Bangui M'Poko International Airport *(*BGF), has the highest Security Charges of USD40.25 (International Passenger) instituted by the CAA. Democratic Republic of Congo is ranked second with a unit rate of USD 32.40 (International Passenger) and in Sao Tome, the security tax has two dimensions: For adults (international Passenger) it is rated at USD 29.52 and Children (International Passenger) USD 22.14 and regional tax stands at USD 11.27. In Equatorial Guinea Bata Airport (BSG) and *Saint Isabel* Airport *(*SSG) have a stipulated unit rate charge of USD 0.48 for their domestic passengers. See Figure 108 below.



Note: The figure illustrates the unit rates (expressed in USD) of Security Tax applied by Civil Aviation Authorities (CAA) across various African countries. The applicable formula for computing the total charge is: Unit Rate × Total Departing Passengers (PAX).
In São Tomé and Príncipe (ST) – TMS, the Security Tax is charged by the Government authority, rather than the CAA.
Central African Republic (CF) – BGF is part of the SAATM-PIP States under the scope of this assessment.

Figure 108 Security tax charged by the CAA; Source: Author analysis based on ACIC, 2024

Tourism Tax Charge

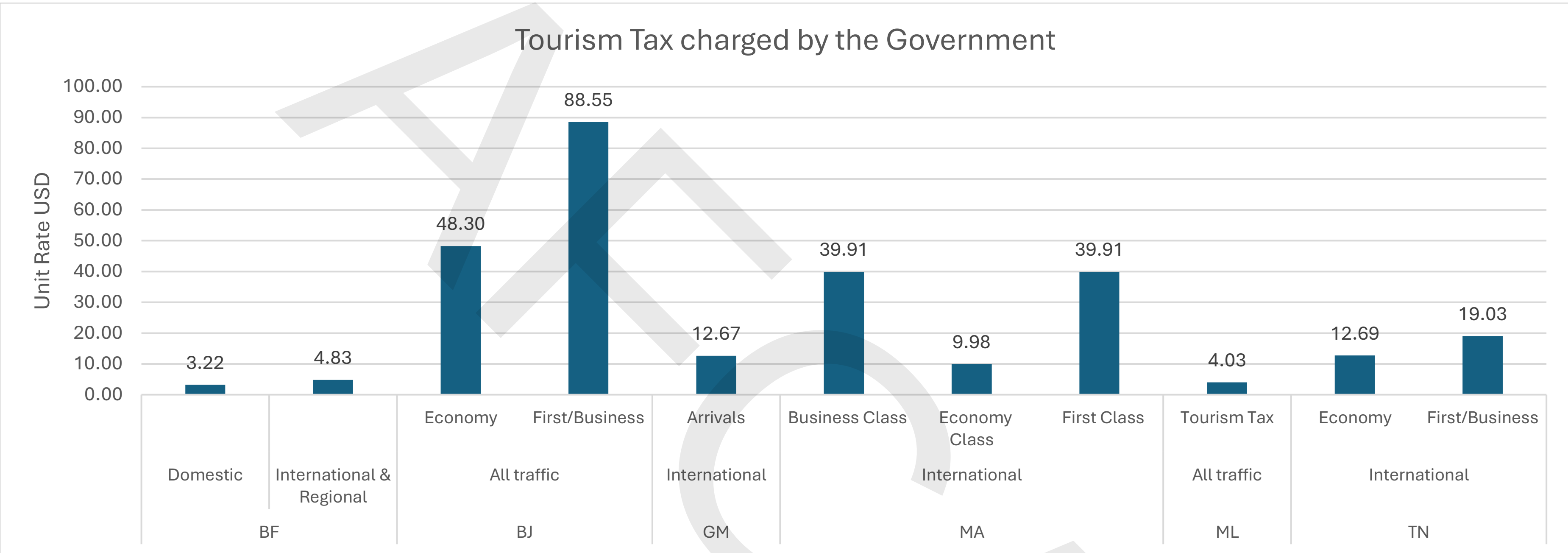
A tourist tax is a levy placed on travellers who visit an area. The tax is typically charged as a percentage of the room rate and is collected by the accommodation provider on behalf of the local government. In most places, international tourists bear the biggest brunt of a tourist tax policy. First and foremost, it generates revenue**.** A tourist tax can generate revenue for the local government which can give them more control over tourism development in their area. This revenue can be used to fund local infrastructure, environmental protection, and other community initiatives. This extra income eases the burden on taxpayers and helps ensure that tourists are contributing to the local economy. Second, it encourages higher-value tourists**.** A tourist tax can discourage budget travellers and attract higher-value travellers who are willing to pay for a more luxurious experience. This will increase the average spending and support higher-value tourism businesses.

This tourist tax can be used as a measure to rate the quality of accommodation and tourist services. It can equally be used to fund inspection and certification programs to ensure that tourists receive a high standard of service and accommodation. On the downside, a tourist tax may increase the cost of travel and accommodation, making a destination less competitive and attractive to visitors. This may particularly affect budget travellers or families who may not be able to afford the additional cost of the tax and may be deterred from visiting a destination.

In Africa, tourist taxes may be difficult to implement. Collecting and enforcing a tourist tax can be challenging, particularly in areas with a large informal accommodation sector or where tax evasion is common. However, against this background, the analysis presented in this study shows a continual picture of tourist taxes in Africa (See Figure 109 below).

The analysis findings revealed that Benin topped the highest tourist taxes for all traffic, with First and Business passengers charged USD 88.55 and for Economy passengers, the tax charged is USD 48.30. Whereas Morocco, has slightly lower standard tax rates for both its international First Class and Business Class passengers (USD 39.91), Gambia imposes a flat tax for all international arrivals and this is rated at USD 12.67. However, Burkina Faso has both domestic and international taxes for travellers. At domestic level the tax is rated at USD 3.22 and international and regional is USD 4.83. Tunisia also has a tourist tax rate for international passengers, rated at USD 19.03 for First and Business Class passengers and USD 12.69 for Economy passengers.

It is important to note that, only Gambia (GM) and Morocco (MA) are part of the SAATM-PIP States under the scope of this assessment. The applicable formula for computing the total charge is: Unit Rate * Total Departing Pax. As actual passenger volumes (PAX) cannot be reliably estimated for this analysis, Figure 109 displays only the unit rate values.



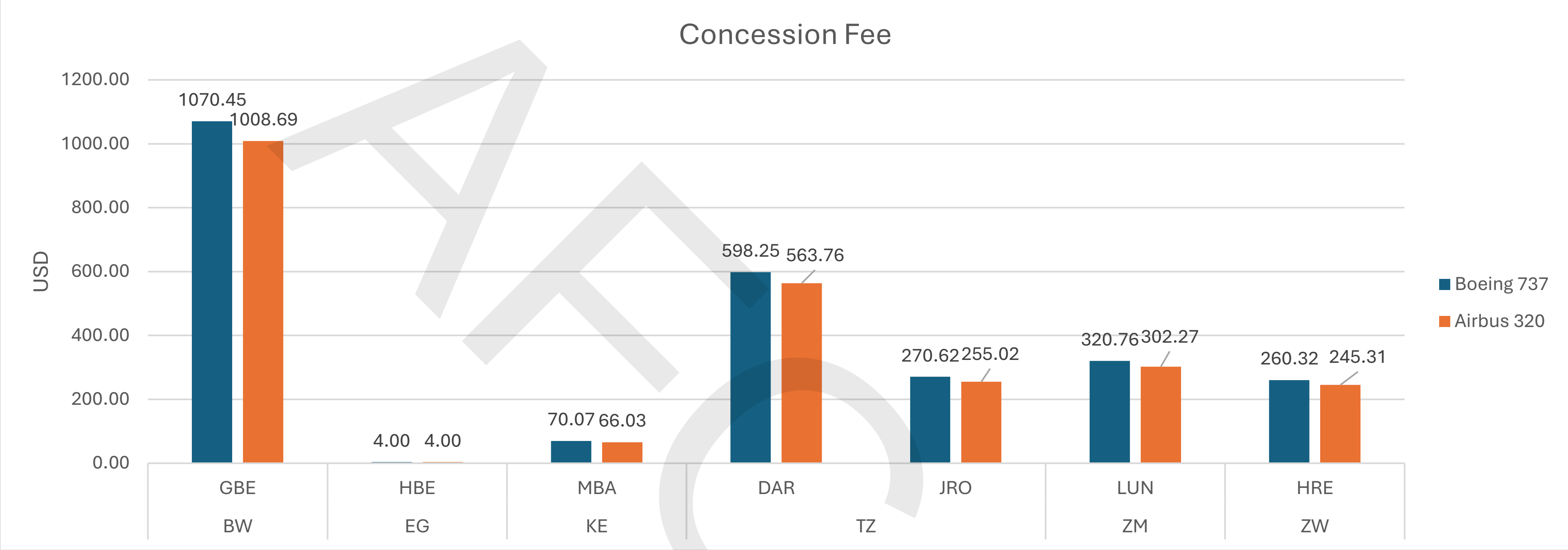
*Note: The figure visualises the continental picture. Only Gambia (GM) and Morocco (MA) are part of theSAATM- PIP States under the scope of this assessment. The applicable formula for computing the total charge is: Unit Rate * Total Departing Pax. As actual passenger volumes (PAX) cannot be reliably estimated for this analysis, the figure displays only the unit rate values, providing a comparative overview of the applicable charges.*

Figure 109 Tourism tax charged by the government; Source: Author analysis based on ACIC, 2024

Concessions

When conducting analysis on the rationale of concession fees imposed by national governments on airports, ANSPS and other aviation value chain players, the spillover effect is higher airfares for passengers. In practice, concession fees applied to the airports and ANSPs are passed on to airlines and their passengers through artificially higher charges, making airlines and passengers pay even more than their fair share of facilities and service costs. Nonetheless, governments do not provide any additional services in return for these concession fees.

In practice, concession fees applied to the airports and ANSPs are passed on to airlines and their passengers through artificially higher charges, making airlines and passengers pay even more than their fair share of facilities and service costs. Nonetheless, governments do not provide any additional services in return for these concession fees. Based on the analysis presented in this study, a continental approach was adopted in order to reflect the spread of different concessions levied by the African governments vary across the continent. Botswana emerged with the highest in terms of concession fees registering USD 1070.44 (Boeing 737) and USD 1008.69 (Airbus A320). Tanzania also recorded a significant high concession fee but with variations by airport location. Dar Es Salaam-Julius Nyerere International Airport (DAR) has the following rates USD 598.24 (Boeing 737) and USD 563.76 (Airbus A320). Kilimanjaro International Airport (JRO) rated USD 270.61 (Boeing 737) and USD 255.02 (Airbus A320). Mombasa International Airport in Kenya rated the lowest for both aircraft types (Boeing USD 70.07 and Airbus A320 USD 66.03) respectively. See Figure 110 below.



Note: The figure provides a continental overview of concession fee charges across Africa. The calculation is based on fuel consumption estimates for two aircraft types: Boeing 737 (26,000 liters / 6,868.5 US gallons) and Airbus A320 (24,500 liters / 6,472.6 US gallons). The total concession fee is derived using the following formula: Unit Rate × Fuel Volume.
It should be noted that for Egypt (EG) – HBE, a fixed concession charge of USD 4 is applied, irrespective of aircraft fuel consumption.

Figure 110 Concession fees; Source: Author analysis based on ACIC, 2024

Tier 4 - Air Traffic Control Charges

In the context of the SAATM-PIP States, the analysis of Air Traffic Control (ATC) charges reveals that only two categories are systematically applied across the dataset: Overflight and Terminal Navigation charges. These represent the primary en-route and approach/departure services provided by Air Navigation Service Providers (ANSPs) within national airspace. The analysis differentiates between unit rate charges (typically based on aircraft weight or distance) and fixed charges (usually applied per flight or per segment regardless of aircraft type), as well as highlighting the variation in pricing structures used by ANSPs.

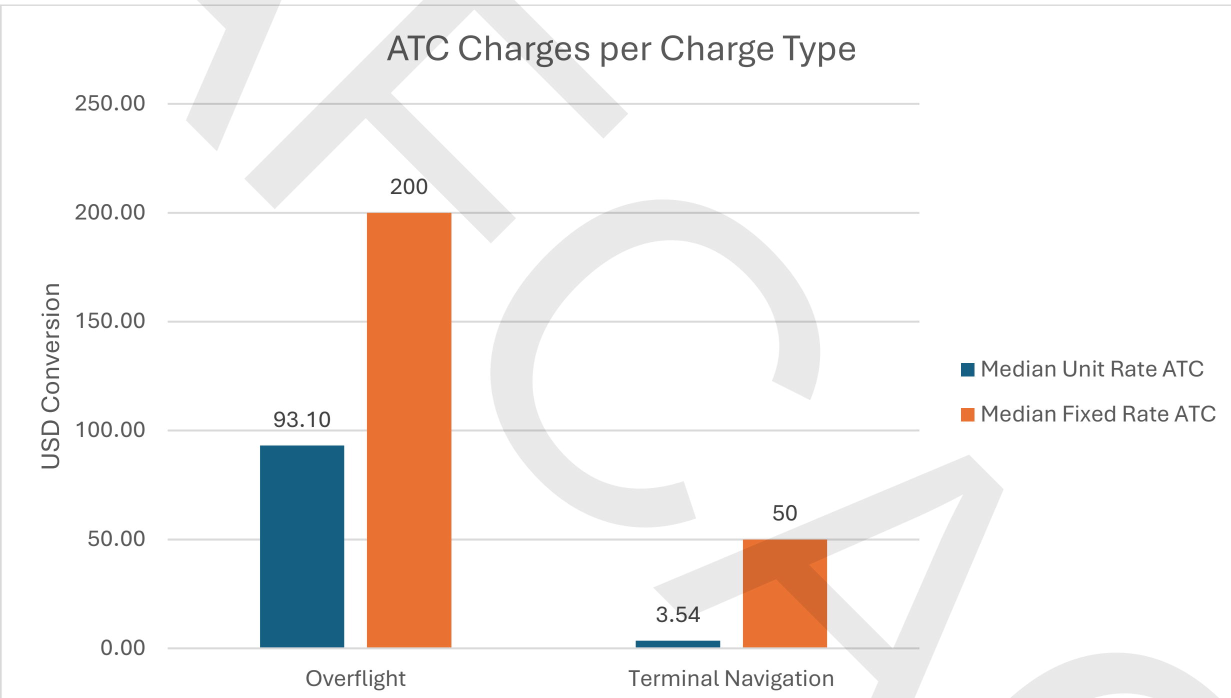


Figure 111 ATC charges per charge type; Source: Author analysis based on ACIC, 2024

The above Figure 111 presents the median unit and fixed rates for ATC charges across selected SAATM-PIP States, converted to USD for comparability. The analysis differentiates between unit rate charges (typically based on aircraft weight or distance) and fixed charges (usually applied per flight or per segment regardless of aircraft type).

Overflight charges are among the most significant revenue streams for ANSPs in Africa. These charges are levied on aircraft transiting through a country's airspace without landing. The median fixed rate of USD 200 suggests that some states apply flat fees regardless of aircraft size or route length, while others may use more dynamic models based on aircraft weight and distance (reflected in the unit rate of USD 93.10).

The analysis reveals that overflight charges in SAATM-PIP states are both economically significant and structurally diverse. While unit-based models promote fairness and cost-efficiency, the widespread use of high fixed rates may deter optimal airspace usage. Moving toward regionally harmonised, data-driven overflight pricing—anchored in ICAO cost-recovery principles—will be critical to enhancing African airspace integration, revenue sustainability, and competitiveness in global aviation routes.

These figures underscore the economic and regulatory dynamics that shape SAATM-PIP states upper airspace management.

- The median unit rate of USD 93.10 suggests that several African ANSPs employ a variable pricing structure that is typically based on aircraft weight (MTOW) and distance flown. This approach aligns with ICAO's cost-relatedness principles and can promote equitable pricing based on service usage.
- The significantly higher median fixed rate of USD 200 indicates that many states also apply flat overflight fees, irrespective of aircraft type or flight length. While administratively simpler, fixed-rate schemes can introduce cost disparities, especially penalising smaller or short-haul aircraft transiting large airspaces.
- Overflight fees are a critical revenue stream for several SAATM-PIP states—especially those with low airport throughput but geographically strategic airspace, such as Chad, Mali, or Niger. However, excessively high or non-transparent overflight fees can encourage carriers to reroute through alternative corridors, leading to underutilised airspace and irretrievable loss of revenue.
- The dual presence of unit-based and fixed-rate models across the continent reflects the absence of harmonised ATC pricing policies. This inconsistency introduces route planning inefficiencies and complicates airline cost forecasting, particularly for pan-African or transcontinental carriers.

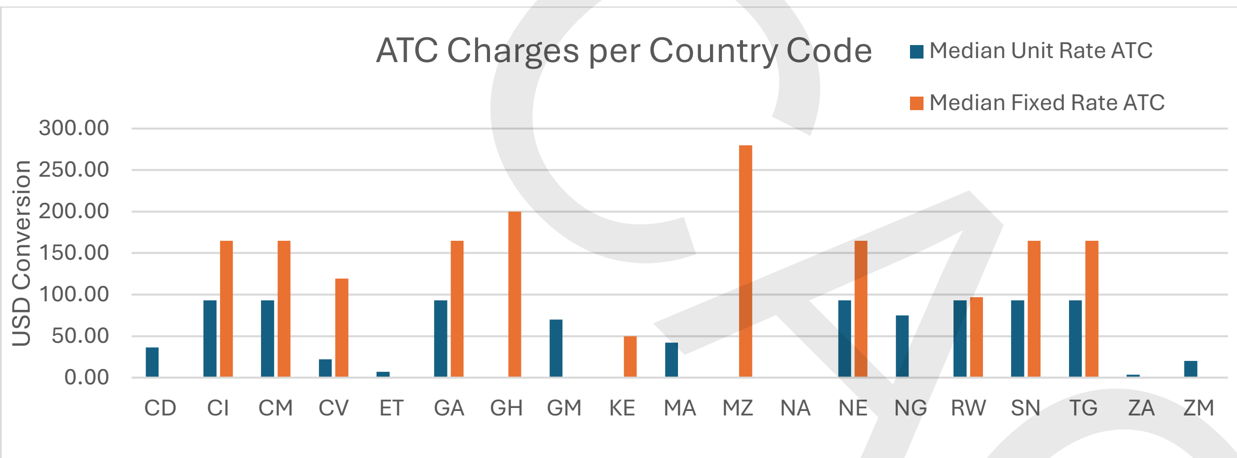
By contrast, the Terminal Navigation charge, applied to aircraft during take-off, approach, and landing phases within the controlled airspace of an aerodrome exhibits considerably lower values: a median unit rate of USD 3.54 and a median fixed rate of USD 50. These values indicate either reduced cost recovery requirements for terminal services or more uniform treatment of aircraft categories in proximity to airport zones. These comparatively lower charges reflect the functional and economic structure of terminal ATC services in the region. However, the key insights that can be deduced from these rates are that:

- The median unit rate of USD 3.54 indicates that many SAATM-PIP ANSPs use a weight- or movement-based calculation method for terminal charges. This aligns with ICAO cost principles, ensuring that charges reflect aircraft size or traffic volume handled by terminal controllers.
- The median fixed rate of USD 50 suggests that some states prefer a flat-fee system, applying a standard charge for any aircraft using terminal ATC services regardless of the aircraft category.

While administratively straightforward, such models may lead to inefficiencies and undercharging heavier aircraft while overburdening smaller or low-frequency operators.

- The relatively low values of both unit and fixed charges reflect limited infrastructure complexity at many SAATM-PIP states airports, where radar coverage, instrument approach procedures, and staffing may not match global high-density airport standards. These reduced costs are passed on as lower fees to operators.
- Despite the lower financial burden, the lack of harmonisation between unit and fixed models can cause disparities between airports and countries, making it challenging for airlines to predict route charges, particularly in cross-border regional operations.

This next section of findings provides a detailed analysis of ATC charges across various African countries within the SAATM-PIP States, based on the comparative median unit and fixed rates illustrated in Figure 112. The analysis focuses on disparities in cost structures, highlighting national differences in airspace management strategies and implications for regional connectivity and airline cost planning.



Note: *The figure visualises only median fixed and unit rates. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport.*

Figure 112 ATC charges per country code; Source: Author analysis based on ACIC, 2024

The holistic picture shows that countries such as Senegal (SN), Rwanda (RW), Togo (TG), Gabon (GA), Côte d'Ivoire (CI), and Cameroon (CM) exhibit some of the highest median unit rates, all exceeding USD 93. This is attributable to their MTOW-based ATC charging structures, which apply different unit rates across multiple MTOW brackets. In these cases, heavier aircraft incur substantially higher ATC fees, resulting in elevated median values. The presence of these differentiated weight-based brackets suggests a relatively harmonised approach to ATC charging across these jurisdictions, particularly for heavier aircraft classes.

Table 54 below presents country-level observations and interpretations based on the median unit and fixed ATC charges across African countries. The aim is to identify outliers, best practices, and potential regulatory or financial implications that affect airline operations and regional airspace utilisation.

Country Code	Key Observation	Commentary / Implication
MZ	Highest fixed ATC rate (~ USD 300)	Likely a flat overflight/terminal fee; could discourage the use of national airspace due to high cost.
GA	High fixed and moderate unit rate (~ USD100)	Hybrid approach; may signal a structured recovery model but increases airline cost burden.
GH	High fixed rate (~USD200)	Potentially discourages regional operations; may need recalibration to boost competitiveness.
CM	Strong fixed rate (~USD 180)	Flat fee model might not reflect ICAO cost-based principles.
CI	High fixed rate (~USD180)	May benefit heavier aircraft but deter small/regional airline routes.
SN	Balanced unit and fixed rates	Reflects alignment with ICAO best practices; promotes fair access.
RW	Low and balanced unit/fixed rates	Encourages traffic while maintaining service cost recovery.
ZA	Low ATC charges	Supports affordability and predictability for operators.
GM	Low ATC charges	May reflect subsidised airspace or bundled service pricing.
ET	Negligible ATC charges	Possibly offset by other aviation revenues or national strategic subsidies.

Table 54 Key Observations and Country-Specific Insights; Source: Author analysis based on ACIC, 2024

Notably, these same countries also apply fixed charges, but these tend to correspond to the lowest MTOW categories. These fixed fees are not progressive in nature and are generally intended for light aircraft operations, reflecting a simplified charge for lower-capacity.

In contrast, Mozambique (MZ) applies only a fixed ATC charge, recorded at a median of USD 280, making it the highest fixed rate among all countries in the sample. This indicates a flat-rate structure, irrespective of aircraft size or weight, which is atypical in comparison to the weight-based schemes observed elsewhere.

Other countries with moderate to low unit rates include Morocco (MA) at USD 41.99, Gambia (GM) at USD 70 and Nigeria (NG) at USD 75; whereas South Africa (ZA), Ethiopia (ET), and Zambia (ZM) show significantly lower unit rates of USD 3.39, USD 6.88, and USD 20.00, respectively. Namibia (NA) and Kenya (KE) register the lowest unit rates at USD 0.02 and USD 0.37, respectively.

The dataset illustrates significant variation in how ATC charges are implemented across the continent. While some States adopt harmonised, weight-based unit charging models, others rely on flat fixed rates or minimal unit fees. Therefore, an assessment of the strategic implications of charge disparities raises concern about "fragmented" policy measures across the African continent.

Strategic Implications of ATC Charge Disparities in Africa

This section provides a detailed analysis of the strategic implications arising from the variation in ATC charges across SAATM-PIP countries. These disparities affect cost predictability, airline operations, policy alignment, and regional airspace competitiveness.

1. Cost Unpredictability and Airline Route Planning Challenges

The wide variation in both fixed and unit ATC rates across SAATM-PIP countries creates cost unpredictability for airlines. Carriers are unable to accurately forecast expenses, complicating operational planning, pricing, and network expansion. This particularly impacts smaller airlines that rely on transparent fee structures to remain viable.

2. Market Disincentives and Airspace Underutilisation

High fixed ATC charges, such as those in Mozambique, Ghana, and Gabon, can discourage carriers from using certain airspaces. This can lead to reduced revenue for these countries, distorted flight routes, increased emissions, and missed opportunities for regional integration.

3. Policy Misalignment with SAATM and AfCFTA Goals

The lack of harmonisation in ATC charge structures contradicts the objectives of SAATM and AfCFTA, which aim to liberalise and integrate African air transport and trade. Non-cost-based charges raise travel costs and limit market participation, hindering progress toward regional integration.

4. Need for ICAO-Aligned Cost Recovery Models

Countries like South Africa, Rwanda, and Senegal demonstrate best practices in aligning their ATC pricing with ICAO principles. Their models promote transparency, fairness, and cost recovery. Scaling such practices across Africa can encourage investment, ensure equity, and support long-term infrastructure planning.

5. Regional Coordination and Institutional Role of AFCAC

AFCAC has a strategic role in guiding harmonisation efforts by benchmarking regional averages, promoting bilateral agreements, and advocating for transparent, cost-related pricing structures. Coordinated policy efforts can reduce fragmentation and enhance Africa's competitiveness in global aviation.

Thus, the current fragmentation in ATC charge structures presents both a challenge and an opportunity. High, inconsistent fees may stifle connectivity and growth, but targeted reforms based on ICAO principles and guided by AFCAC can transform Africa's airspace into a predictable, investment-friendly environment. This is essential for achieving the full potential of SAATM and AfCFTA.

The following Table 55 summarises the strategic implications associated with these charges mentioned above.

Observation	Implication
Cost Unpredictability	Significant variation across countries complicates airline route and cost planning.
Market Disincentives	High fixed charges (e.g., in MZ or GA) may deter airlines from using specific airspaces, leading to lost revenue opportunities.
Policy Misalignment	Lack of harmonisation contradicts regional aviation goals under SAATM and may impede seamless connectivity.
Need for ICAO Alignment	Balanced models (e.g., RW, ZA) demonstrate best practices for cost recovery while preserving competitiveness.

Table 55 Summary of Strategic Implication of ATC Charge Disparities; Source: Author analysis based on ACIC, 2024

The analysis of ATC charges across the SAATM-PIP States reveals significant disparities and, in certain cases, consistent alignment across traffic categories and countries. The presented data combines both median unit rates and, where applicable, median fixed charges, with all values converted to USD for standardisation.

A notable observation is the harmonisation of ATC charging structures in Côte d'Ivoire (CI), Cameroon (CM), Gabon (GA), Niger (NE), Rwanda (RW), Senegal (SN), and Togo (TG). In these countries, the same unit rate is applied across domestic, regional, and international operations, specifically USD 93.10 for regional and USD 116.36 for international traffic, while the domestic rate is consistently USD 75.64. This reflects a structured approach to ATC pricing, in which tariff schemes follow clearly defined and uniformly applied rates across operational scopes. Additionally, the fixed charges in these same States are harmonised, most notably USD96.90 for domestic/regional traffic and USD 232.73 for international operations, which are applied to the aircraft between 4 - 14 tonnes MTOW, without taking into consideration the distance in the formula, suggesting a high degree of internal consistency and cost predictability for operators.

By contrast, other States exhibit significantly lower or non-harmonised ATC charges. For example, Kenya (KE) applies minimal unit rates for domestic (USD 0.26) and international (USD 0.48) traffic, with a fixed charge of USD 50, pointing to a cost-recovery model potentially designed to encourage airspace usage. Ethiopia (ET) also applies low rates (USD 0.25 for domestic and USD 20 for international) with no fixed component reported, indicating a simplified pricing structure.

Mozambique (MZ) presents a unique case, applying only a fixed ATC charge of USD 280 without a variable unit rate. Similarly, Ghana (GH) reports a very low unit rate (USD0.75) but applies a high fixed rate (USD 200) for aircraft with MTOW - 4 - 20 tonnes.

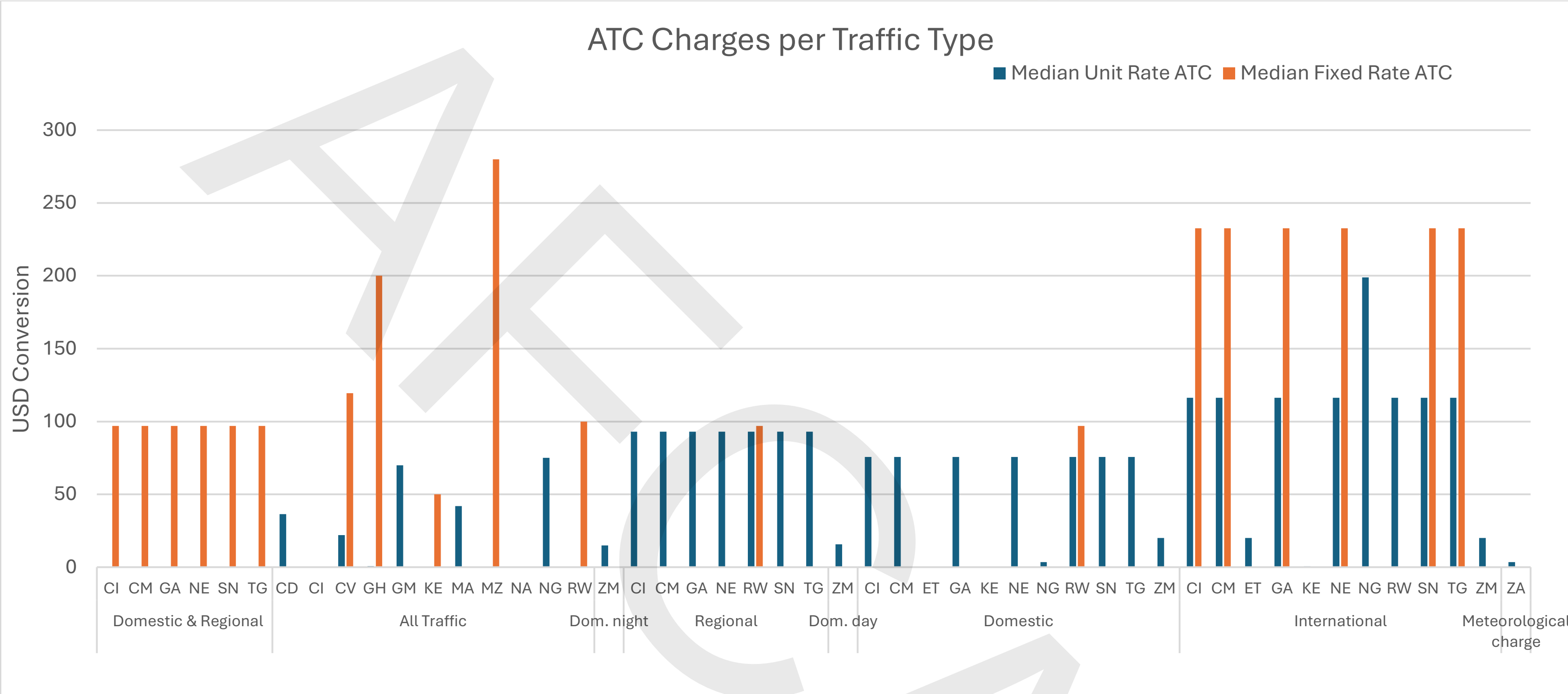
Several countries report ATC rates that are exclusive to particular traffic categories. For instance, Zambia (ZM) shows unit rates for all traffic (USD 20) and specific charges for domestic operations divided into day (USD 15.63) and night (USD 14.84), which implies a time-based modulation of service costs. This is the only country in the dataset with such temporal differentiation.

Nigeria (NG) applies a high international ATC unit rate of USD 199, aligning with the upper range of the regional average but without an accompanying fixed charge. Meanwhile, Cape Verde (CV) applies a unit rate of USD 21.99 alongside a fixed charge of USD 119.50, again suggesting a dual pricing approach.

Furthermore, South Africa (ZA) is the only State in the dataset applying a meteorological charge (USD 3.39), which may reflect a broader inclusion of en-route services under the ATC cost umbrella.

Analysis of ATC Charges by Traffic Type in SAATM-PIP states

Figure 113 below examines the Charges per Traffic Type and reveals patterns in ATC charges across various traffic categories in African airspace. It compares median unit rates and fixed rates by country and type of traffic: domestic, regional, international, and meteorological services. The analysis highlights critical insights on cost distribution, charging models, and implications for policy harmonisation and operational efficiency.



Note: *The chart visualises only median fixed and unit rates. Total charges payable by operators or passengers may vary significantly depending on the formulas applied, which differ by charge category and by airport.*

Figure 113 ATC charges per traffic type; Source: Author analysis based on ACIC, 2024

Table 56 presents the key observations based on the ATC Charges per Traffic Type chart, highlighting patterns in unit and fixed rate applications across different types of air traffic. Each observation is accompanied by a commentary outlining its potential implications or insights.

Traffic Type / Country Grouping	Key Observation	Commentary / Implication
Domestic & Regional (CI, CM, GA)	Uniform fixed rates (~USD 100) across traffic types	Standardised pricing may simplify administration but lacks flexibility for different aircraft classes and distances.
All Traffic (GH, GA, MZ)	High fixed charges up to ~USD 280	Flat-rate models discourage frequent use by regional and low-cost carriers; may result in underutilisation.
Domestic Day/Night (Multiple countries)	Generally low charges compared to international	Reflects efforts to support local aviation or indicates government subsidies.
Regional (Multiple countries)	Moderate unit rates averaging ~USD 90	Reasonable pricing promotes regional connectivity, though harmonisation would improve predictability.
International (GH, KE, RW, SN, TG)	Highest fixed rates, often exceeding USD 250	High cost burden could disincentivise long-haul or intercontinental service expansion.
Meteorological Charges (ZM, ZA)	Very low or nominal values	Suggests these costs are subsidised or included within broader service packages.

Table 56 Key Observation based on ATC Charges per Traffic Type; Source: Author analysis based on ACIC, 2024

The disparity between countries and traffic types in ATC charging structures presents major strategic challenges. Airlines operating across African borders face inconsistent costs, impacting route viability, pricing strategies, and competitive positioning. High fixed charges on international traffic may limit the growth of intercontinental connectivity. Meanwhile, excessive domestic/regional fixed fees reduce affordability for short-haul operations, undermining SAATM's goals of improved regional integration.

Finally, it is evident from the analysis that ATC charges across SAATM-PIP states vary widely by traffic type and between fixed and unit rates. While international routes face the steepest fees, domestic and regional traffic generally enjoys more moderate pricing. However, the variation in fee structures points to a lack of harmonisation, which can complicate cross-border operations and reduce competitiveness. Harmonised, usage-based pricing aligned with ICAO principles is needed to support fair, sustainable, and growth-oriented ATC frameworks.

Within the intricate landscape of business aviation, navigation fees constitute a pivotal element of operational costs. Managed by the ANSPs, these fees are integral to the provision and maintenance of air traffic control services, navigational aids, and essential flight safety measures. There are several types of navigation fees. In this study, we examined the following: Overflight fees and Terminal navigation fees.

- *En-route Fees:* These are charges for the use of air traffic control services during the flight and are often based on the service volume used.
- *Terminal Navigation Fees:* Incurred for services provided at specific airports, these fees are generally associated with the terminal phase of a flight.

- *Oceanic Fees:* Applicable when traversing oceanic airspace, which requires specialised air traffic control due to the lack of radar coverage.
- *Overflight Fees:* These are levied by countries for the use of their airspace without landing and can vary significantly from one nation to another.

In Africa and other regions, navigation fees also vary, but they generally represent a moderate portion of operational expenses. However, it is important to note that political and economic instability in some areas can lead to fluctuating fees.

Overflight Charges

Air Navigation Service Providers (ANSPs) charge Airlines the cost of services like Air traffic Control provided in their Airspace and/or Airport. Overall, user charges for ANSP and Airport share 15-16% of the overall cost of air transport. In order to promote effective dialogue for cost efficiency with the ANSPs in monopolistic status, IATA promotes the adoption of fair and equitable charging practices in coordination with airline members. The following analysis reveals variations in ATC charges across the SAATM-PIP states.

The overflight charges are illustrated in Figure 114 below. It is important to note that variations in charges are significant due to country-specific calculating methods used to determine the overflight charges. Notably, Figure 115 presents the computed total overflight charge based on the application of a country-specific formula that incorporates a constant unit rate, and a unique coefficient based on flight type (Regional, Domestic, or International). Although these countries use the same unit rate, the resulting charges vary due to differences in the coefficients assigned to each flight category.

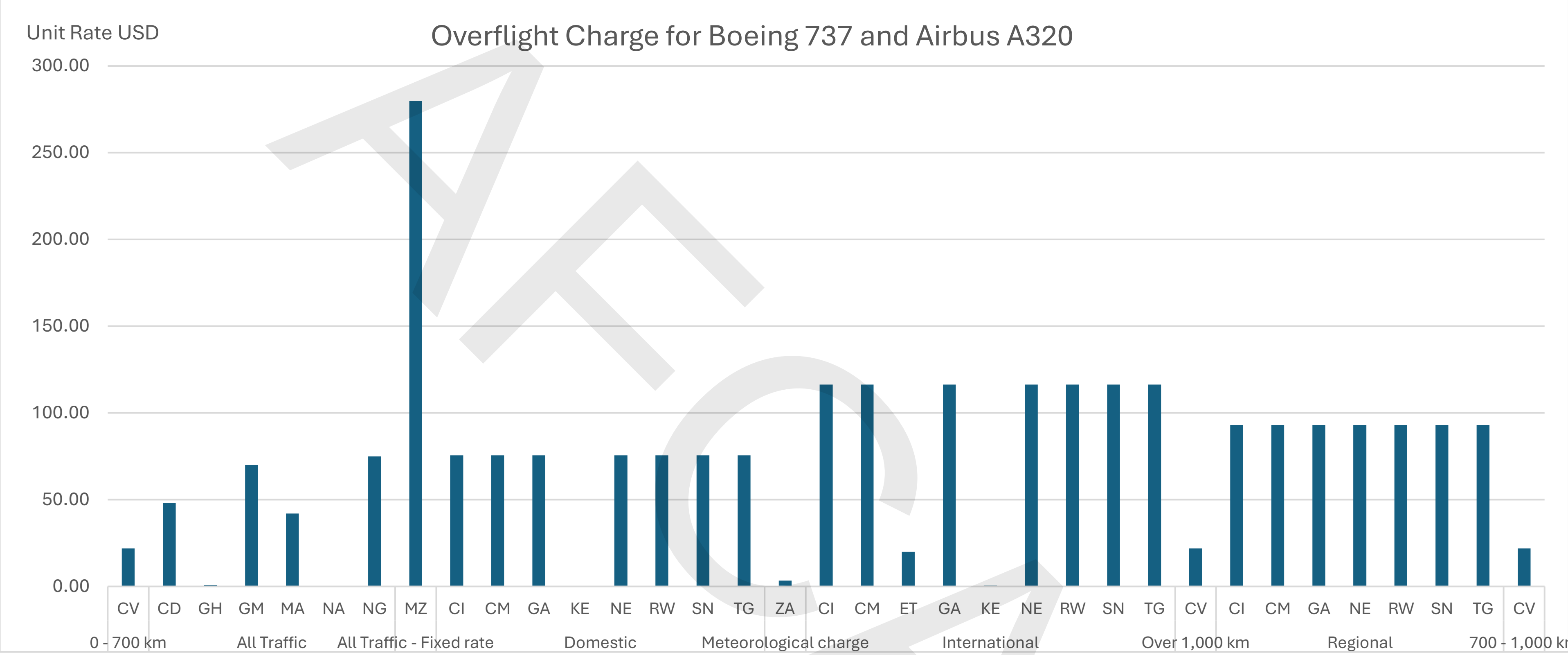
To support a comparative analysis of overflight charges across selected African countries, the presented Figures 114 and 115 were developed using the unit rate charges applicable to aircraft in the 51–90 tonnes weight category, which includes commonly used commercial aircraft such as the Boeing 737 and Airbus A320. These aircrafts serve as a benchmark due to their widespread use across regional and international routes within the continent, and their Maximum Take-Off Weight (MTOW) falls within a standard range that most states classify consistently.

Figure 114 represents only the unit value (in USD) that is used in the country-specific formula to calculate the overflight charge. The final overflight charge depends on additional factors, such as the distance flown, which is multiplied by this unit rate. The purpose of visualising the unit rate is to enable a cross-country comparison based on the base charge value. In the case of Mozambique (MZ), a fixed rate system is applied rather than a distance-based calculation, which is why the value appears significantly higher than the others. In (Cote d Ívoire,(CI), Cámeroon (CM) Mozambique (MZ) Ghana (GA), Niger (NI), Rwanda (RW), Senegal (SEN) and Togo (TG) the same value for the unit rate is applied.

Therefore, in Figure 115 a refined calculation was conducted for a selected group of countries CI, CM, GA, NE, RW, SN, and TG whose overflight charge formulas are defined using distance coefficients and permit computation without access to a specific flight plan. In these cases, the formulas apply multipliers (e.g., "Unit Rate * 28" for longer distances) that enable the estimation of a final overflight charge in USD. This method allowed for a more realistic comparison of total overflight charges rather than unit rates alone (see Appendix 3).

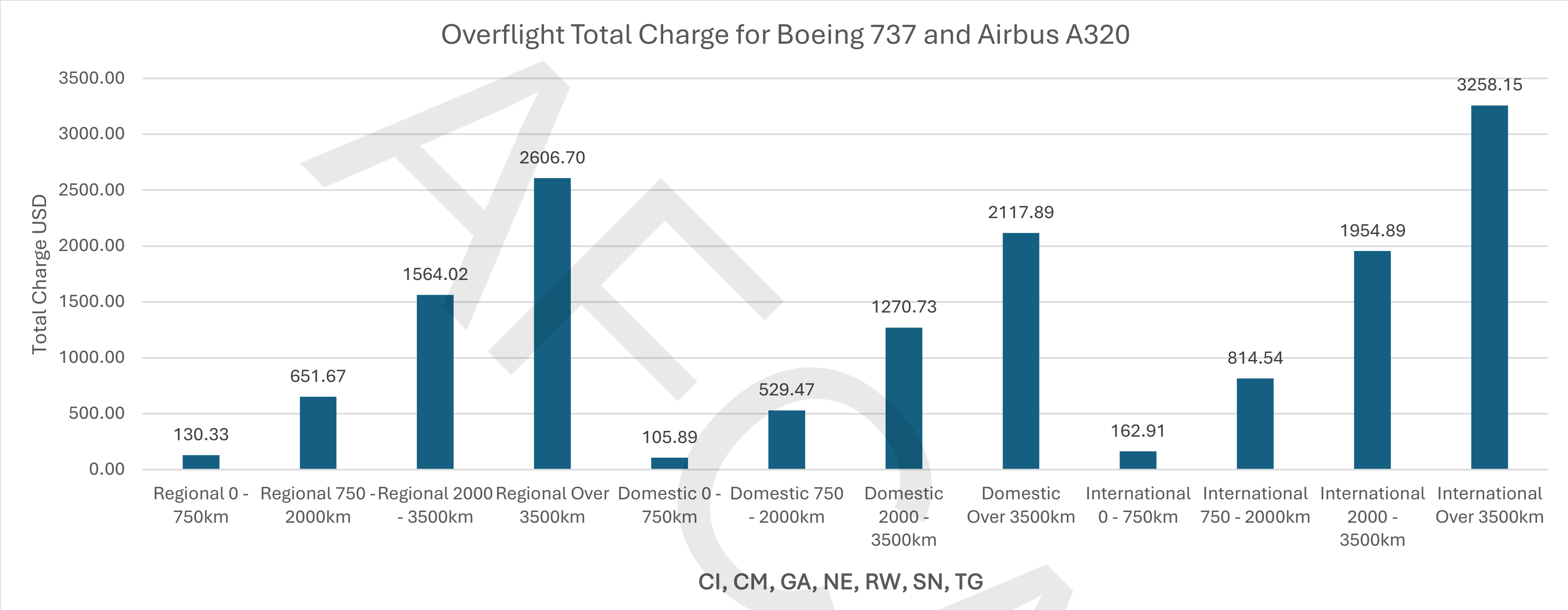
When comparing the results from Figure 115 it becomes evident that the total computed charges for these countries—once distance coefficients are applied—can exceed the fixed-rate charge in Mozambique. For instance, international flights over distances exceeding 3,500 kilometres result in final overflight charges of up to USD 3,258.15, highlighting that despite a lower unit rate, the total cost can be significantly higher due to the formula structure.

The use of unit rates in Figure 114 was essential to establish a common basis for countries with variable-distance formulas. Figure 115, based on actual computed values for formulas that use fixed multipliers, allows for a more realistic comparison where feasible. This dual approach was necessary to overcome the limitations of not having fixed flight path distances while still allowing a meaningful interpretation of overflight charge magnitudes across the continent.



Note: *This figure represents only the unit value (in USD) that is used in the country-specific formula to calculate the overflight charge. The final overflight charge depends on additional factors such as the distance flown, which is multiplied by this unit rate. The purpose of visualising the unit rate is to enable a cross-country comparison based on the base charge value. In the case of Mozambique (MZ), a fixed rate system is applied rather than a distance-based calculation, which is why the value appears significantly higher than the others. In CI, CM, GA, NE, RW, SN, TG the same value for the unit rate is applied.*

Figure 114 Overflight total charges for Boeing 737 vs. Airbus A320; Source: Author analysis based on ACIC, 2024



Note: This figure presents the computed total overflight charge based on the application of a country-specific formula that incorporates a constant unit rate and a unique coefficient based on flight type (Regional, Domestic, or International). Although these countries use the same unit rate, the resulting charges vary due to differences in the coefficients assigned to each flight category.

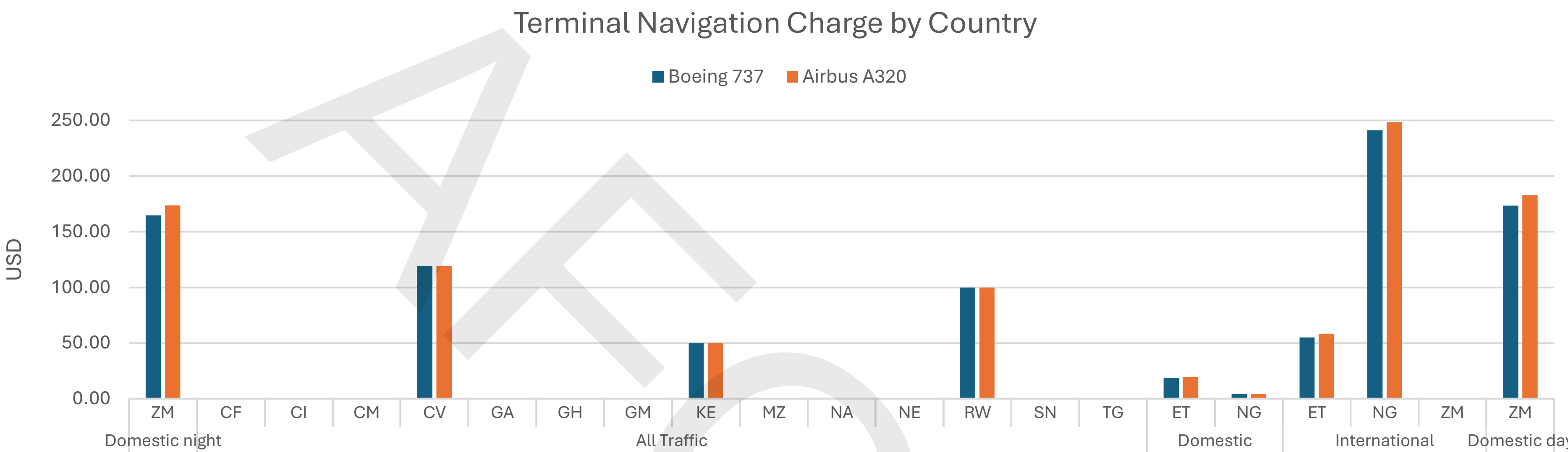
Figure 115 Overflight charges for Boeing 737 vs. Airbus A320; Source: Author analysis based on ACIC, 2024

Terminal Navigation Charges

Within the intricate landscape of business aviation, navigation fees constitute a pivotal element of operational costs. Managed by the ANSPs, these fees are integral to the provision and maintenance of air traffic control services, navigational aids, and essential flight safety measures.

The results of the analysis (See Figure 116 below) indicated that Nigeria had the highest Terminal Navigation Charges for both aircraft types: Boeing 737 –USD 241.27 and Airbus A32 –USD 248.45.

Zambia imposes a fee structure for domestic flights and takes into account whether it is day time or night time for the two aircraft types. Thus, for day time, Boeing 737 is charged USD 164.77 (night-time) and USD 173.44 (day-time) and for the Airbus A320, USD 173.67 (night-time) and USD 182.81.



	Domestic night	All Traffic														Domestic		International			Domestic day
	ZM	CF	CI	CM	CV	GA	GH	GM	KE	MZ	NA	NE	RW	SN	TG	ET	NG	ET	NG	ZM	ZM
Boeing 737	164.77	0.00	0.00	0.00	119.50	0.00	0.00	0.00	50.00	0.00	0.09	0.00	100.00	0.00	0.00	18.56	4.29	55.13	241.27		173.44
Airbus A320	173.67	0.00	0.00	0.00	119.50	0.00	0.00	0.00	50.00	0.00	0.09	0.00	100.00	0.00	0.00	19.69	4.42	58.50	248.55		182.81

*Note**:** The zero values displayed in the figure represent countries where no Terminal Navigation Charges are applied. These values are included for visual comparison and clarity.*

The figure presents the Terminal Navigation Charges in USD. The Airbus A320 charges were calculated based on a Maximum Take-Off Weight (MTOW) of 78 tonnes. Boeing 737 charges were calculated based on an MTOW of 73.5 tonnes. The standard calculation is based on the formula: Unit Rate × MTOW (Metric Tonnes) for both aircraft types.

However, in Cape Verde (CV), Kenya (KE), and Rwanda (RW), a fixed rate is applied instead of a unit rate-based calculation.

Figure 116 Terminal navigation charge by country; Source: Author analysis based on ACIC, 2024

RECOMMENDATIONS

This chapter presents evidence-based recommendations aligned with the methodology employed in this study, including insights derived from a comprehensive literature review, stakeholder consultations, questionnaire analysis, legal analysis and field missions. These recommendations aim to address the challenges in African civil aviation taxation, enhance alignment with international standards, and support the operationalisation of the Single African Air Transport Market (SAATM).

The lack of a homogeneous tax scheme and the presence of different ad hoc aviation taxes require African countries to ensure transparency in setting charges. This means that the different tax regimes generate additional costs to African aviation, hence leading to a potential reduction in intra-African air service demand as well as administrative burdens for both airlines and airports.

At present, systems for the recovery of aviation security costs are *regulated at a national level* and are *not always transparent* to the users. Users are not systematically consulted at all African airports before charges are determined or before a charging system is modified. Therefore, user consultation must be conducted to ensure the legitimacy of escalating charges at the airports. Based on the mission findings presented in this study, there is reasonable evidence traction supporting the notion of stakeholder engagement when policymakers determine charges rendered on air transport services, which indicates that the continent is moving in the right direction.

As the methods for establishing and levying the amounts due for the coverage of security costs differ across the African continent, the harmonisation of the basis for charging security costs at the airports where the costs of security are reflected in the security charges. At these airports, the charge should be related to the cost of providing security, taking into account any public financing of security costs.

Below, as part of a set of recommendations related to security charges, the following basic principles must be respected by African airport operators when determining their security charge:

- **Non-discrimination**: Aviation security charging systems should not discriminate between carriers or passengers.

- **Consultation and remedy**: The airport managing body and the air carriers serving the airport, or their representative organisations, must engage in a dialogue on the security charging system applicable at an airport not only when such system is modified but also when the levels of the security charges are being established. The aim of this requirement is that the two parties exchange views on a regular basis on the levels of the charges, as well as on all factors and regulatory requirements that have an influence on the determination of those charges.

- **Transparency:** This Report provides no provisions on the methods for calculating security charges that should be applied in each Member State within the African market. Whilst this study acknowledges the wide diversity of airport regulation in the various Member States, a reasonable amount of information must nevertheless be provided by the operator to the air carriers so as to make the consultation process between airports and air carriers meaningful. To this end, the Report establishes which information should be provided on a regular basis by the airport managing body. Air carriers should, in turn, give information as to their traffic forecasts, their intended fleet use and their present and future specific requirements at the airport, to allow the airport managing body to employ their capital and dedicate their capacity in an optimal manner.

- **Cost-relatedness:** Revenues from security charges shall only be used to meet security costs.

There is an urgent need to establish an Airports Charges Directive which will spearhead the harmonisation of the regulatory framework for airport charges in Africa by setting minimum requirements on consultation and transparency. These requirements are intended to compensate for the market power of an airport as the sole infrastructure provider for a given city or region.

From the findings in this study, the practices in some States in the region were not in line with the policies and guidance of ICAO on charges and taxation. From the findings in this report, the imposition of taxes such as Air Passenger Duty, Solidarity Tax, VAT on sales of tickets, and jet fuel tax could have counterproductive effects that impede or slow down air transport development within the African region.

Taxes and charges are high compared to basic fares, therefore lowering demand and revenues. There remains a strong call for African Member States and relevant authorities to refrain from imposing such taxes and levies on civil aviation and for ICAO to explore possible solutions, to strengthen the implementation of its policies on taxation.

The regulatory framework across the Region is not integrated. Different laws, regulations and regulatory practices add to airline costs. Harmonisation of aviation laws, regulations and regulatory practices in the Region is essential to facilitate the seamlessness and efficiency of not only airports but also airline operations. Common laws and regulations will ensure certainty to encourage growth and cooperation initiatives among aviation industry stakeholders.

The current UN Model Tax Convention minimizes unjustified administrative and financial burdens for airlines, while fostering a stable tax environment to support air connectivity, economic growth and social development. There is concern about the possible revision of Article 8 of the UN Model Tax Convention, which could lead to double taxation of airline profits. Finally, there is the importance of following existing international tax policies – approved by the UN's specialised agency for aviation, the ICAO in order to avoid profound negative impacts on the aviation sector, particularly in developing countries.

It is imperative that collaboration between governments, airlines and international organisations to create a harmonised tax system will have consumer welfare gains in terms of reduction in air fare prices. The creation of a more integrated and efficient tax environment is essential to strengthen competitiveness and ensure the sustainable development of aviation in Africa and removing aviation taxes drives efficiency and connectivity growth to the benefit of the consumer. Therefore, taxes result in demand reduction. Taxes may cause a modal shift in terms of consumers shifting to other modes of transportation.

Harmonisation of Taxation Policies Across African Countries

The study underscores the critical need for tax harmonisation to streamline aviation charges, taxes, and fees across Africa. The lack of standardised taxation frameworks imposes considerable financial burdens on airlines, stifling competition and growth within the sector. This fragmentation restricts regional integration and limits the potential benefits of SAATM. The following steps are recommended:

Development of Regional Guidelines: The establishment of regional guidelines outlining a unified approach to aviation taxes is essential. These guidelines should be developed in close collaboration with member states and align with global standards, such as ICAO's Document 8632 and Document 9082, to foster compliance and facilitate advocacy efforts for harmonised implementation. The guidelines should cover all aspects of taxation, including passenger taxes, cargo taxes, fuel surcharges, and airport-related fees. A unified framework would simplify taxation procedures, promote transparency, and ensure consistency across borders. Additionally, the development of these guidelines should involve extensive consultation with stakeholders across the aviation value chain, including airlines, airport operators, civil aviation authorities, and government representatives. Such inclusive development will ensure that the guidelines are practical, widely accepted, and reflective of the unique dynamics of the African aviation market.

Periodic Review of Harmonised Tax Rates: Implementing a periodic review mechanism, such as bi-annual reviews, would ensure that tax rates remain relevant and in line with regional economic dynamics. Aviation is a highly volatile industry influenced by factors such as fuel prices, geopolitical developments, and economic fluctuations. A rigid tax structure that does not adapt to these changes could further strain the industry. Therefore, a flexible and adaptive taxation framework, supported by stakeholder input, could help sustain competitiveness and attract investment into the African aviation sector. These periodic reviews should be data-driven, involving input from all relevant stakeholders, including airlines, passengers, airport operators, and regulatory bodies. By analysing trends in the aviation industry, economic growth rates, and passenger demand, the regional and national authorities can recommend adjustments to tax rates that are aligned with current realities. This approach will not only help to maintain the economic viability of airlines but also contribute to the long-term sustainability of the aviation sector. Furthermore, it is recommended that a regional task force be established to oversee the review process. This task force should comprise representatives from AFCAC, the AU, civil aviation authorities, and industry experts. The task force would be responsible for monitoring the implementation of harmonised tax policies, evaluating their impact, and making necessary recommendations to ensure that the taxation framework remains conducive to growth and competitiveness. Establishing such a task force would also enhance accountability and provide a platform for continuous dialogue between policymakers and industry stakeholders.

Targeted Policy Support for Low-Cost Airlines

The growth and proliferation of low-cost carriers (LCCs) are essential for enhancing the accessibility, affordability, and inclusivity of air travel across Africa. Low-cost airlines play a pivotal role in liberalising air travel by making it possible for a broader segment of the population to affordably access regional and international markets. This expanded connectivity directly contributes to socio-economic development by promoting trade, tourism, and mobility for both business and leisure travellers. However, despite the evident potential, LCCs in Africa are encountering multiple challenges that hinder their growth and competitiveness in the aviation sector.

Insights gathered from extensive stakeholder consultations highlighted numerous regulatory and operational barriers that LCCs face, which significantly constrain their ability to operate efficiently and compete effectively with legacy carriers. Regulatory constraints, such as complex and time-consuming licensing requirements, inconsistent aviation policies across different jurisdictions, and high entry barriers, present significant obstacles. Moreover, the regulatory charges further deter LCCs from expanding their network and maintaining cost-effective operations.

To address these issues, it is crucial for African governments to develop targeted and strategic regulatory reforms aimed explicitly at supporting the expansion of LCCs. These reforms should focus on streamlining licensing and certification procedures to ensure that LCCs can obtain the necessary approvals more efficiently and at lower costs. A harmonised approach to aviation policy across the continent, guided by the African Continental Free Trade Area (AfCFTA) framework, could also help create a more predictable regulatory environment, reducing the administrative burden that LCCs currently face when operating across multiple countries.

By implementing these targeted policies, African governments can create an enabling environment that allows LCCs to thrive, ultimately benefiting consumers through lower airfares, greater connectivity, and more choice. The expansion of LCCs would not only stimulate intra-African travel but also align with the broader goals of the Single African Air Transport Market (SAATM) initiative, which aims to promote the liberalisation of air transport and facilitate economic integration across the continent. Such measures will also encourage competition, improve efficiency in the aviation sector, and contribute to long-term sustainability.

Strengthening Stakeholder Collaboration and Consultation Mechanisms

Throughout the stakeholder consultations, it became evident that the lack of consistent stakeholder engagement is a major factor contributing to policy misalignment and operational inefficiencies within the African aviation sector. The diverse range of stakeholders involved in aviation—such as governments, airline operators, airport authorities, regulators, and ground handlers, which leads to fragmented decision-making and the development of policies that do not fully align with the realities faced by the industry. This disconnect creates inefficiencies, impedes the effective implementation of regulations, and ultimately stifles the growth potential of aviation across the continent.

To address these challenges, the establishment of a formal and structured stakeholder consultation framework is highly recommended. Such a framework would facilitate ongoing dialogue, foster transparency, and encourage a shared understanding of key issues and challenges. By promoting regular and meaningful engagement among stakeholders, this mechanism can help ensure that policies are well-informed, practically applicable, and conducive to the growth of the aviation sector.

The proposed framework should include several key components to ensure its effectiveness. First, annual workshops should be organised to bring together stakeholders from across the aviation ecosystem to discuss emerging challenges, share best practices, and collectively identify solutions. These workshops would serve as a platform for knowledge exchange and capacity building, helping stakeholders stay abreast of industry developments and regulatory changes. Moreover, these gatherings can provide an opportunity to evaluate the impact of existing policies and propose necessary adjustments to better align with evolving market conditions.

In addition to annual workshops, the framework should also include regular working group meetings that focus on specific areas of concern, such as safety and security regulations, airport infrastructure development, airline connectivity, and taxation. These working groups would consist of representatives from relevant stakeholder groups and would meet on a quarterly or biannual basis to address pressing issues, coordinate initiatives, and provide policy recommendations. By maintaining a consistent and structured schedule of meetings, stakeholders can ensure that they remain responsive to emerging trends and challenges, thereby enhancing the agility and resilience of the aviation sector.

Furthermore, the stakeholder consultation framework should also emphasise the importance of inclusivity and equitable representation. It is essential that all stakeholders—including smaller airline operators, regional airports, and other industry players who may not typically have a voice in policy discussions—are given the opportunity to contribute to the dialogue. This inclusive approach would help ensure that policies reflect the diverse needs and interests of the entire aviation ecosystem.

In the context of aviation, transparency and stakeholder consultation are essential components of effective governance, especially when it comes to Taxes, Charges and Fees (TCFs). By ensuring that all changes to TCFs are clearly communicated and that stakeholders are given the opportunity to participate in the decision-making process, governments and authorities can foster a more predictable and stable aviation environment. Transparency is vital in the implementation and modification of TCFs. African governments should engage in a consultative process with airlines and other stakeholders before introducing new TCFs or amending existing ones. This process should include transparent communication regarding the rationale for the changes, the expected impact, and the methods of implementation. IATA's recommendation for a minimum four-month consultation period is intended to provide sufficient time for stakeholders to prepare and adapt. In the absence of transparency and consultation, TCF changes can lead to confusion, misalignment, and unintended financial consequences for airlines, passengers, and governments alike. By involving stakeholders early in the process, governments can ensure that TCFs are not only fair and effective but also implemented in a way that minimises disruptions and supports the long-term growth of the aviation sector.

By institutionalising these consultation mechanisms, African governments and industry stakeholders can work collaboratively to create an enabling policy environment that supports the growth, sustainability, and competitiveness of the aviation sector. Strengthening stakeholder collaboration will not only enhance policy alignment and operational efficiency but also contribute to the realisation of broader initiatives such as the Single African Air Transport Market (SAATM) and the African Continental Free Trade Area (AfCFTA), which aim to promote greater connectivity, economic integration, and shared prosperity across the continent.

Promoting Sustainable Practices in Aviation

Environmental charges and sustainability practices emerged as recurrent themes during the stakeholder consultations and literature review, underscoring the urgent need for the aviation sector in Africa to align with global sustainability goals. As the aviation industry continues to grow, its environmental impact—particularly greenhouse gas emissions, noise pollution, and resource consumption—is becoming increasingly significant. Addressing these environmental challenges requires a coordinated effort involving not only national governments but also regional bodies and international stakeholders. By fostering a common approach to sustainability, African aviation can better position itself to meet international environmental standards and contribute to global climate change mitigation efforts.

A key component of this framework should be the development of incentives that encourage the adoption of greener technologies. This includes providing financial incentives or tax breaks for airlines that invest in fuel-efficient aircraft, renewable energy sources, or carbon offset programs. Such incentives could help reduce the financial burden associated with transitioning to environmentally friendly technologies, making it more feasible for airlines—particularly smaller carriers with limited resources—to adopt sustainable solutions. Additionally, the framework should promote the development and use of sustainable aviation fuels (SAF), which have the potential to significantly reduce the carbon footprint of air travel.

In conclusion, promoting sustainable practices in aviation is not only essential for reducing the industry's environmental impact but also for ensuring its long-term viability. By developing a robust framework that incentivises green technologies, provides clear guidelines for emissions reduction, and ensures that environmental charges are effectively utilised, African aviation can align with global sustainability goals while also contributing to the economic and social development of the continent. The adoption of sustainable practices will also enhance the competitiveness of African aviation, positioning it as a responsible and forward-thinking industry in the face of growing environmental concerns worldwide.

Adopt Transport-Based Taxation for TCFs

Transport-based taxation is an important concept in the context of aviation charges and taxes. It refers to the practice of levying taxes, charges and fees (TCFs) based on the actual transport of passengers rather than at the point of ticket sale. This recommendation, which is widely supported by the International Air Transport Association (IATA), has significant benefits for both the aviation industry and governments. Transport-based taxation means that aviation-related taxes are collected only after the passenger has completed their journey. Currently, many countries impose TCFs at the time of ticket sale, which means that airlines collect these charges upfront and are responsible for remitting them to the authorities even before the service is delivered. This approach aligns taxation with the service provided—only after the passenger has flown, the related charges are calculated and remitted to the appropriate authorities. This ensures that airlines do not face unnecessary administrative burdens and cash flow issues related to refunds or adjustments for unused tickets.

One of the primary benefits of transport-based taxation is the significant reduction in administrative complexity. In the current sales-based taxation model, airlines must deal with numerous scenarios where passengers cancel or change their flights. With transport-based taxation, these complications are largely avoided because taxes are collected only after the flight has been completed. This system eliminates the need for airlines to remit taxes on services that were never provided, thereby streamlining administrative processes for both airlines and tax authorities.

Transport-based taxation also plays a critical role in supporting the financial stability of airlines. The aviation industry is characterised by high costs and low-profit margins, making cash flow management extremely important.

The concept is also aligned with international best practices as recommended by IATA. Globally, around 87% of TCF remittances are made on a transport basis, which means that the majority of countries have already adopted this efficient and practical system. This will also make African countries more attractive to international airlines by simplifying compliance requirements, leading to increased connectivity, more airline routes, and, ultimately, greater economic opportunities for the region.

An essential component of transport-based taxation is the use of an automated TCF system that supports the accurate and efficient management of aviation taxes, charges and fees. This system automates the entire lifecycle of TCFs, from their initial implementation to their final remittance, reducing the need for manual intervention and minimizing errors. The automated TCF system allows taxes to be applied to tickets, reconciled when passengers use those tickets for transportation, and then declared and remitted to the appropriate authorities. This automation plays a key role in reducing the administrative complexities and errors that can arise when managing TCFs manually. It also ensures that airlines and authorities can accurately and transparently handle declaratory amendments and adjustments, thereby fostering a more effective working relationship between all stakeholders involved in the aviation ecosystem.

By aligning taxes with the actual consumption of air transport services, governments can reduce administrative burdens, support the financial stability of airlines, and align their practices with international standards. This approach not only simplifies tax collection and remittance processes but also creates a more attractive environment for airlines, thereby promoting connectivity and economic growth across the continent.

Implement a Future Effective Date for TCFs

In the context of aviation, implementing a future effective date for Taxes, Charges and Fees (TCFs) is a best practice that ensures smooth transitions, compliance, and efficiency for all stakeholders involved.

A future effective date for TCFs refers to establishing a clearly defined timeline for when new or amended taxes, charges and fees will take effect. This timeline typically provides a minimum lead time of four months before the changes are implemented. This advance notice allows airlines and other stakeholders to adjust their systems, processes, and business practices accordingly, ensuring that the impact on passengers and operational activities is minimised. Currently, when TCF changes are implemented without adequate notice, airlines often face significant operational and financial challenges. The lack of preparation time can lead to complexities in ticketing, billing, and compliance, which ultimately impacts the passenger experience.

By providing ample notice, airlines can adjust their pricing strategies to account for the updated TCFs, ensuring that ticket prices are accurate and reflective of all applicable charges. This not only prevents financial discrepancies but also ensures that passengers are fully informed of the costs associated with their travel, thereby enhancing transparency and trust between airlines and their customers.

The practice of implementing a future effective date for TCFs is aligned with international standards, such as those set by the ICAO. ICAO recommends a minimum prenotification period of four months for any changes to TCFs, allowing stakeholders adequate time to prepare.

African states should adopt policies that clearly define the effective date for both the sale and travel components of TCFs. This means that any TCF changes should only apply to tickets sold after the effective date, preventing undue financial pressures on airlines for tickets that were sold prior to the announcement of new fees. Such foresight in policy implementation will minimize the risk of operational disruptions and help maintain passenger confidence.

No Tax on, or Within, a Tax

African governments are encouraged to adopt the principle of avoiding taxes on, or within, other taxes. Fees and charges collected on a travel ticket by an airline should not form part of the taxable value for sales-based taxes. This practice, often referred to as "tax on a tax," creates an unfair burden on airlines and passengers, leading to inflated costs and reduced demand for air travel.

Currently, in some jurisdictions, taxes are levied on top of TCFs, which can lead to inflated costs for passengers and reduce the affordability of air travel. Such practices can also create financial and operational challenges for airlines, as they must navigate complex taxation rules and manage the administrative burden of calculating and remitting taxes on taxes.

One of the key benefits of adopting the principle of no tax on, or within, a tax is the reduction in the overall cost of air travel for passengers. When TCFs are subject to additional taxes, the final ticket price increases, making air travel less affordable for consumers. This can have a particularly negative impact in regions like Africa, where affordability is a key factor in expanding access to air transport and supporting economic growth. By ensuring that TCFs are not taxed further, governments can help maintain more affordable ticket prices, thereby promoting greater accessibility to air travel for a wider range of passengers. This, in turn, can lead to increased passenger volumes, which supports the growth of the aviation sector and contributes to broader economic development.

On the other hand, when TCFs are subject to additional taxes, it can be difficult for passengers to understand the breakdown of the charges included in their ticket price. This lack of transparency can lead to mistrust and dissatisfaction among passengers, who may feel that they are being unfairly charged.

To foster a competitive and equitable aviation environment, governments should ensure that TCFs are implemented without being subject to value-added tax (VAT) or similar levies. Airlines act merely as facilitators in collecting these charges from passengers and should not bear additional tax liabilities for amounts that are not airline revenue. This approach will also prevent double taxation and help maintain the affordability of air travel.

Exemptions from TCFs Should Follow Industry Standards

TCF exemptions refer to the categories of passengers and services that are not subject to specific taxes, charges and fees. These exemptions are designed to promote equitable access to air transport, alleviate financial burdens on certain groups, and enhance the overall efficiency of the aviation sector. Common TCF exemptions include those for infants, young children, transit passengers, airline crew members on duty, and humanitarian aid-related services. Such exemptions are meant to reduce unnecessary costs and ensure that air travel remains accessible to different categories of travellers while also supporting essential services.

By aligning exemption categories with global standards, African states can reduce the complexity involved in administering TCFs, thereby improving the efficiency of collection and reporting processes. Simplifying exemption guidelines also minimizes administrative burdens for airlines, which in turn leads to cost savings that can be passed on to consumers.

A significant benefit of aligning TCF exemptions with industry standards is the reduction in the administrative burden on airlines. When exemptions vary widely between jurisdictions, airlines must navigate complex and sometimes conflicting regulations, which can lead to increased compliance costs and administrative inefficiencies. These complexities can also result in errors, delays, and potential disputes with tax authorities.

Develop Standard Billing and Payment Processes

The development of standard billing and payment processes for Taxes, Charges and Fees (TCFs) is vital for enhancing transparency, efficiency, and consistency in the aviation sector. By establishing standardised procedures, African governments and aviation authorities can streamline the collection of TCFs, reduce administrative burdens on airlines, and create a more predictable financial environment.

Standard billing and payment processes ensure that all stakeholders—including governments, airlines, and airport authorities—have a common understanding of how TCFs are calculated, billed, and paid. This consistency helps to foster trust and accountability, reduces the risks of disputes, and supports more effective financial planning for airlines.

The adoption of automated systems as part of these processes is also crucial. Automation minimises manual errors, expedites the reconciliation of payments, and contributes to a more efficient management of TCFs. This not only simplifies the workload for authorities and airlines but also aligns with international best practices advocated by organisations like IATA.

In addition, standard billing and payment processes improve cash flow management for airlines by providing clear timelines and predictable payment schedules. This predictability allows airlines to allocate resources more effectively and maintain financial stability, which is crucial for their growth and competitiveness.

Standardising the currency for payment and ensuring that all TCF payments are made on a transport basis (rather than at the point of sale) will further simplify the process. Governments should also consider allowing airlines to offset TCF refunds against future payments, which will alleviate the administrative burden on airlines and help streamline the refund process for passengers.

Strategic Recommendations

This study has attempted to unveil the TCFs-related complexities and challenges of standardising existing structures, jurisdictional overlap, and different FIRs defined by different charges and structures that underpin the aviation industry. In Africa, the current charging system varies across the AU member states, each with its own method for computing user charges, and no standardised uniformity to reflect the drive to achieve a common aviation market as prescribed under the SAATM agenda.

Drawing the analysis from multiple lenses, the findings suggest that the industry, particularly in Africa, appears "marginalised" due to the continuous exposure and imposition of high TCFs. In its context, the aviation industry is very competitive and characterised by very thin profit margins and extremely high operating costs, which are further exacerbated by increased TCFs. Therefore, a clear road map is required to tackle this issue. Within the context of the African market, it is important to note that air travel accessibility requires the promotion of competition and a push for an open skies single market to give African consumers choice and above all, reduce the cost of travel by harmonising the framework for TCFs. The varied nature of TCFs structure within the African markets limits the propensity to drive aviation development towards achieving the SAATM agenda on the continent. A common African bespoke model is paramount to ensure transparency and fairness in how TCFs are categorised by different charging authorities.

Henceforth, the following practical recommendations will anchor and provide a blueprint for the policy changes required to impact the growth of the industry, stimulating demand and making air travel affordable. The following practical recommendations have been mapped to balance stakeholder expectations and interest in terms of reviewing and subsequently reducing TCFs impacting operating costs within the aviation ecosystem.

Airlines

- ***Negotiating favourable contractual conditions*** with airport operators to reduce fees and charges. Airlines can leverage their market share, their network, their passenger volume, and their operational efficiency to obtain discounts, incentives, or waivers on landing fees, terminal charges, parking fees, or ground handling services.
- Another way to reduce TCFs is to ***optimise the airline's operations at the airport***. This can include minimising the turnaround time, reducing fuel consumption, avoiding delays and cancellations, using the most suitable aircraft size and configuration, and maximising the load factor and the revenue per seat.
- African carriers can aim to reduce airport fees and charges by forging ***collaboration with other airlines or partners*** that share the same airport. Airlines can benefit from economies of scale, synergies, and joint purchasing power by forming alliances, codeshares, joint ventures, or interline agreements with other carriers.
- ***A full consultation process*** should set a precedent within the airline community for any proposed TCFs or modification to a TCF. The consultation process should consider elements such as transparency and non-discriminatory practices in the implementation of fees and charges as defined in Doc 9082 of the International Civil Aviation Organisation (ICAO).
- ***Advocacy for reforms*** in the African aviation industry that can create a more transparent, fair, and competitive environment. At both national and regional level, airlines can engage with regulators, policymakers, industry associations, or consumer groups to promote the adoption of international standards, best practices, and benchmarks for airport fees and charges.
- ***A complete removal of non-aviation levies*** which are not correlated to the African aviation industry's development strategic agenda.

Visa Fees

The freedom to move across borders remains a fundamental pillar of the continent's integration agenda. Hence, paradoxically, there is a misalignment between countries' visa openness and support for facilitating intra-African travel in the context of a broader regional integration agenda.

- Establish a ***common and standard African visa fee model*** that is continental-wide. The agreed visa fee should be established in US dollar format. Alternatively, extend visa-free travel policies to all AU member states, if necessary, in increments (by moving from a visa-before-travel to a visa-on-arrival or visa-free entry; moving from a visa-on-arrival to visa-free entry)
- Promote higher levels of ***visa-free reciprocity*** within the RECS as a stepping stone to more visa openness within and outside of movement person protocols.

Security Fees

The full concept of *security fees* needs to be well explained in order to ensure that the fee levied on passengers is transparent. This calls for a regulation on establishing standard security fees across African airports. Establish a common framework through a managing body or a unit within AFCAC to regulate the essential features of security charges and the way in which they are set, ensuring transparency for airport users.

This managing body should provide users with the following information on how all the security charges collected at the airport are determined:

- ✓ the various services and infrastructures provided in return for the security charge levied;
- ✓ the method of calculation of security charges and the expected level of these charges;
- ✓ the revenue and cost of each category of security charges levied at the airport;
- ✓ the total number of staff deployed to services responsible for the collection of charges;
- ✓ investments that may affect the level of security charges.

The RECs should conduct their own annual Regional TCFs Assessment Report Scorecard, which should be disseminated to AFCAC in order to strengthen the executing agency's powers when advocating for the reduction of TCFs at the AU level.

- AFCAC – as the executing agency for the SAATM implementation agenda, significantly requires additional capacity to ensure the full cooperation of member states in terms of implementing harmonised policies. This calls for strengthening the human capital within the existing "thin" structures of AFCAC: This capacity building is a vital process to increase the manpower required towards accelerating the harmonisation process, paving the way for a unified single air transport market with a standard model on taxes charges and fees.
- A unified regional framework aimed at reducing airfares, thereby making air travel more affordable for both citizens and businesses and to travel by air will not come as a luxury, but rather as an alternative mode of transportation. Key priorities should include eliminating all taxes that are not in line with ICAO recommendations and reducing within the threshold of 25%-30% two main charges (passengers and security). All these decisions will aim to optimise fees and ensure that aviation security protocols meet international best practices.

Concession Fees

Airlines and their passengers already invest significantly to support infrastructure costs at airports and ANSPs. Rent and concession fees are effectively an additional tax on air travel and effectively spike ticket prices. As part of the study recommendation, concessions should be removed because governments do not provide services to airports, ANSPs, airlines or their passengers in return for concession fees. Therefore, such additional concession fees restrict economic growth and tourism flow.

- Removing fees that airports and ANSPs pay to governments will benefit all stakeholders: governments, airports, ANSPs, airlines and most importantly, the paying passengers.

Air Navigation Charges

Air traffic management, air navigation services and airport aeronautical services are financed through a system of user charges, special-purpose taxes and fees, and government appropriations. User charges may be collected from the airlines by airports (e.g., landing fees, airport noise charges, and security charges) or by national civil aviation authorities or similar bodies (e.g., *en route* navigation charges). Some special-purpose taxes and fees, including airport facility charges and ticket taxes, are added directly and overtly to the price of airline tickets or cargo waybills and collected by the airlines on behalf of airports or governments.

Other aviation infrastructure and navigation costs are absorbed by the airlines or passed on to the customers as part of the base fare. In a highly price-competitive industry, airlines are sensitive to user charges because they impact, directly or indirectly, the total cost of air travel and, thus the eventual price at which they can offer tickets.

In Africa, the current charging system varies across the AU member states, each with its own method for computing user charges and no standardised uniformity to reflect the drive to achieve a common aviation market as prescribed under the SAATM agenda.

Hence, there is no common policy in terms of ANSPs charges. ANSPs apply different rates from one country to another, except for ASECNA whose formulas are common for 17 member states in Western and Central Africa, and in the Indian Ocean.

It is also the case in Europe with EUROCONTROL, where the formula is the same for all states, but the only difference is that the unit rates are not yet harmonised. In other regions across Africa, there are huge variations from one country to another. A continental harmonisation brings more transparency and may lead to a cost reduction relating to the provision of the rates and formulas of air navigation services (AFRAA, 2020).

The following section presents some recommendations:

- ***A full harmonisation of the navigation and communication charges*** would reduce the complexity of the system for the users; users would pay a single bill to a single entity and more readily shape their behaviour to make efficient use of the system. Additional benefits could include decreased administrative costs, as overhead billing and charging functions could be consolidated.

- ***A fully harmonised flat user charge*** would result in a single charge being collected from each flight entering any of the Flight Information Regions (FIRs) within the AU. The charge would be the same regardless of the distance flown, the FIR(s) entered, or the aircraft type. The full harmonisation approach in Africa maintains the revenue neutrality assumptions of the semi-independent approach. Additionally, this charge per flight can be collected and disbursed to the contracting states by continental agencies like ASECNA or EUROCONTROL in Europe. This type of structure allows for a single charge to be levied from the customer, harmonises the charging scheme, and ensures cost recovery.
- The harmonisation of only the ***charging methodology*** will allow service providers to set and collect their own charges. The second harmonisation alternative fully harmonises the AU user charges, resulting in a single charge per flight. This recommendation will require further modelling analysis to incorporate the different charging scenarios such as a flat charge, distance-based rate, a combination weight and distance charge, and a fixed-plus-variable charge.
- Thus, the harmonisation of the regions' user charges allows for the unique opportunity to ***develop a more rational system of charges*** without large disruptions to most users.
- Harmonisation is a broad term and can have differing implications depending on its interpretation. ***Full harmonisation***, for example, can be reasonably interpreted as meaning the adoption of a *single charge*, which would be collected from each flight entering the AU airspace with the resulting revenues being allocated amongst ANSPs. Another interpretation of harmonisation might be the adoption of a *common methodology* for computing charges (e.g., the ANSPs may agree that they will all collect a flat charge computed in the same way by everyone), but with the charges set and potentially collected at the individual ANSP level.
- ***A "semi-independent" approach*** (e.g., harmonising the methodology only) would mean a politically and, arguably, administratively easier transition from the current system. This methodology refers to the consistency of the charging methodology across all service providers within the AU. Under this approach, each jurisdiction would set its own charge level. For example, a semi-independent flat charge would require each provider to charge on a per-flight basis, but would allow providers to determine what rate to charge. The reason for the latter is that differences in size, amount of traffic, governing structures, technology, productivity etc., of the African FIRs may result in differences in ASNPs costs. Therefore, it may be desirable to keep the charge-setting responsibilities within the control of the ASNPs rather than relinquishing control to a unified entity. This approach allows each ASNP to set their revenue objectives (e.g. cost recovery, reasonable ROI etc.). However, the full advantages of a harmonised charge structure can only be obtained through a fully harmonised system.

- Numerous issues must be addressed on the way to developing and implementing a semi-independent or fully harmonised user charge structure in the AU. These include the type of charging scheme to adopt as well as the impact of the new charge structure on each stakeholder. Stakeholders include both system users (e.g., commercial airlines, general aviation, cargo carriers) and service providers.
- The users are concerned with the impact of the charging scheme on their operating costs. Depending on the user class, different charge structures may be more desirable (e.g., general aviation would likely be opposed to a single flat charge for intra-Africa flights).
- To ensure revenue adequacy and financial sustainability, user charges must be closely aligned with the actual costs incurred in the provision of air navigation and related services. Relying on cost-based pricing not only promotes fairness and transparency but also helps service providers recover sufficient revenue to maintain and upgrade infrastructure and operations. Given the volatile nature of key cost drivers—such as fuel prices, maintenance expenses, labor costs, and technological upgrades—the charging scheme must be designed with a degree of flexibility. This adaptability is crucial to enable timely adjustments in response to fluctuations in the cost environment, thereby preventing under-recovery or overburdening users during periods of economic stress or operational disruption. A dynamic and responsive charging model ultimately supports the resilience and efficiency of the aviation system. See below.

Key Characteristics of a Dynamic Cost Environment in Aviation:

1. Volatility in Fuel Prices

- Jet fuel is one of the largest single expenses for airlines.
- Prices can fluctuate rapidly due to global oil market dynamics, supply chain disruptions, or geopolitical tensions.

2. Currency Exchange Rate Fluctuations

- Aviation is a global business, with many transactions (e.g., aircraft leasing, maintenance, fuel) often conducted in foreign currencies.
- Exchange rate volatility can increase operational costs unpredictably.

3. Labour and Staffing Costs

- Pilot and crew wages, ground handling, and technical staff costs vary based on labour market conditions, union negotiations, and regulatory changes.

4. Technological Investments

- The need for continuous investment in aircraft technology, digital infrastructure, and air traffic management systems adds variability to long-term cost structures.

5. Regulatory and Environmental Compliance

- New environmental policies (e.g., carbon taxes, emissions trading systems, noise regulations) can introduce additional compliance costs.
- These costs may vary by region or change over time.

6. Maintenance and Lifecycle Costs

- Aircraft maintenance schedules, unexpected repairs, and aging fleet issues contribute to fluctuating capital and operating expenditures.

7. Airport and Air Navigation Charges

- Charges imposed by airports and ANSPs can vary due to infrastructure upgrades, policy changes, or cost-recovery adjustments.

In practice, these criteria above are difficult to satisfy simultaneously, while different stakeholders rank their relative importance differently. For example, some would argue that a charging structure that reflects the true cost of service to each user should be adopted, while others would support a methodology that takes ability-to-pay into consideration. The advantages of a structure based on true cost include adequate cost recovery for service providers and providing incentives to users to operate efficiently (e.g., a flat landing fee, independent of aircraft weight, encourages airlines to use larger aircraft, arguably better utilising limited airport capacity). Opponents, however, believe that true-cost-based charging unduly burdens marginal users of the system. It is imperative to note that there are other conceivable charge structures, which could be viable in the harmonisation approach. Discussing these different charge structures will go beyond the scope of this study.

Policy Recommendations

Harmonising aviation taxes, charges, and fees in Africa is a critical step toward creating an integrated, affordable, and competitive air transport market, especially under initiatives like the SAATM. Drawing lessons from other regions—particularly Europe, ASEAN, and Latin Americas, can provide valuable insights into how Africa might approach reform. To harmonise taxes and charges effectively, Africa must learn from both the successes and missteps of other regions. Establishing clear, fair, and regionally consistent policies—not only improves connectivity but also boosts tourism, investment, and economic integration. SAATM can be the catalyst for unified aviation taxation, but success depends on strong political will, regional cooperation, and a focus on sustainable, inclusive growth. The next section takes a look at what lessons can the African aviation learn from other regions in the world.

Lessons from other Regions

European Union

The EU aviation market is one of the most integrated in the world, thanks to centralised regulation and strong institutional frameworks. Coordination is achieved through bodies like:

1. EUROCONTROL – Manages en-route air navigation charges across Europe.
2. European Union Aviation Safety Agency (EASA) – Regulates safety, airspace usage, and cost-efficiency.
3. European Commission (EC) – Oversees competition, passenger rights, and harmonisation of airport charges.

Key Features of EU Coordination

1. Common Charging Framework

En-route and terminal charges are governed by EU Regulation 391/2013, requiring:

- Transparency in cost structures.
- Justification of charges based on actual service cost.

Applies uniformly across all EU member states.

2. Single European Sky (SES) Initiative

Aims to streamline airspace management.

Reduces fragmentation and inefficiency—cuts costs for airlines and passengers.

3. Non-Discrimination Principle

Charges must be non-discriminatory between EU and foreign carriers.

Ensures equal market access and competition.

4. Passenger Rights Regulation (EU261)

Defines compensation, refund, and care standards.

Ensures consumer protection, fostering trust in the system.

EU Strategy	Application for Africa
Unified charge regulation	Africa can develop a continental tariff framework under AFCAC or AU.
Cost-related pricing	Prevents excessive taxation—ensures sustainability.
Strong oversight agencies	Africa can strengthen bodies like AFCAC or ASECNA to regulate charges.
Cross-border consistency	Reduces complexity for airlines operating in multiple countries.
Single airspace management	Africa can pursue its own version of Single African Sky for efficiency.

Table 57 EU Strategy and Application for Africa; Source: Compiled by Author

The EU's success lies in centralising oversight, enforcing transparency, and aligning charges with service costs. For Africa, adopting similar principles through SAATM and AFCAC could lead to a more integrated, affordable, and sustainable aviation sector.

Focus Area	Lesson Learned	Relevance to Africa
Transparency	EU mandates transparent breakdown of taxes & fees	Improve passenger trust and airline cost forecasting
Predictability	ASEAN phased reforms for smooth market transitions	Create a roadmap to harmonize charges under SAATM

Focus Area	Lesson Learned	Relevance to Africa
Cost Control	Latin America shows over-taxation suppresses traffic	Keep charges tied to cost recovery, not general revenue
Regional Institutions	EUROCONTROL and EASA manage oversight	Strengthen AFCAC's regulatory and coordinating powers
LCC Enablement	ASEAN success tied to tax-friendly environment	Make aviation taxes lighter for intra-African routes

Table 58 Key areas for harmonising TCFs; Source: Compiled by Author

According to Table 58 the following areas are of key importance for Africa to create a harmonised TCFs single market.

1. Transparency

- *What we learn:* In the EU, regulations mandate a transparent breakdown of ticket prices, including all government taxes, airport fees, and service charges.
- *Why it matters in Africa*: Many African passengers and even airlines struggle to identify what portion of a ticket goes to taxes vs. operational charges. This lack of clarity can erode trust and discourage travel.
- *Recommendation*: African regulators should standardise and publish tax/fee structures to increase transparency and reduce confusion, supporting informed decisions by passengers and airlines.

2. Predictability

- *What we learn*: ASEAN countries phased in liberalisation and pricing reforms gradually, giving markets time to adapt.
- *Why it matters in Africa*: Unpredictable or frequently changing tax policies make it hard for airlines to plan long-term investments and for passengers to anticipate travel costs.
- *Recommendation*: Africa should develop a harmonised, long-term roadmap for aviation charges under SAATM to provide consistency across countries and reduce investor uncertainty.

3. Cost Control

- *What we learn*: Latin America's over-reliance on aviation for public revenue led to high taxes, which discouraged regional travel and hurt smaller carriers.
- *Why it matters in Africa*: Many African states view aviation as a “luxury,” leading to high and often overlapping taxes that increase ticket prices and reduce demand.
- *Recommendation*: African governments should tie aviation charges strictly to cost recovery and service delivery, avoiding excessive levies that stifle air traffic growth.

4. Regional Institutions

- *What we learn:* The EU relies on central institutions like EUROCONTROL and EASA to coordinate fees, safety, and infrastructure investments.

- *Why it matters* in Africa: Bodies like AFCAC, ASECNA, and AFRAA already exist but lack the regulatory power or funding to enforce harmonised pricing.
- *Recommendation*: Strengthen and empower regional aviation institutions to set continental standards for taxes, safety oversight, and pricing regulation.

5.Low-Cost Carrier (LCC) Enablement

- *What we learn:* ASEAN's low tax burden helped carriers like AirAsia thrive, making flying affordable for the masses.
- *Why it matters in Africa*: LCCs like Fastjet, Fly540, and Jambojet struggle under high per-passenger taxes, especially on short-haul routes.
- *Recommendation*: Create favourable tax structures for LCCs and short-haul regional flights, to promote connectivity and affordability for Africa's growing middle class.

To unlock its full aviation potential, Africa must prioritise:

- Cost-efficient, transparent, and predictable tax structures
- Empowered regional governance
- Supportive environments for low-cost and regional air travel

By adopting these strategies, Africa can harmonise aviation fees, improve competitiveness, and drive economic integration across the continent.

ASEAN (Southeast Asia) – Liberalisation with Collaborative Bilaterals

- *Lesson*: ASEAN adopted a phased liberalisation approach where countries gradually removed taxes and entry restrictions via multilateral and bilateral agreements.
- *Impact*: Boosted low-cost carrier (LCC) growth (e.g., AirAsia) and expanded regional travel with relatively uniform charges.
- *Key Takeaway for Africa*: Use SAATM as a platform for harmonised tax reforms while still allowing flexibility for smaller economies to adapt over time.

Latin America – Over-Taxation Warning

- *Lesson*: In Latin America, especially in Brazil and Argentina, excessive taxes and charges hindered market growth and limited regional integration.
- *Impact:* Despite strong tourism, high taxes discouraged local carriers and made regional air travel expensive.
- *Key Takeaway for Africa:* Avoid over-reliance on aviation as a "cash cow" for government revenue and excessive taxation can kill demand and undermine connectivity.

The Role of AFCAC in Driving Tax, Charges, and Fees Harmonisation in Africa

As the specialised agency of the African Union for civil aviation, AFCAC is uniquely positioned to lead the continent toward a harmonised, transparent, and sustainable aviation pricing regime, especially under the SAATM (Single African Air Transport Market) framework.

What AFCAC Should Do: Key Recommendations

Develop a Continental Framework for Aviation Charges

- ✓ *Action*: Draft and implement a Model African Aviation Charges and Fees Policy in collaboration with states, RECs (e.g. ECOWAS, SADC), and ICAO.
- ✓ *Goal*: Ensure all charges (navigation, airport, passenger, non-aviation taxes) are cost-related, transparent, and non-discriminatory.

Coordinate a Continental Audit of Taxes and Fees

- ✓ *Action*: Conduct a comprehensive audit of all aviation-related taxes and charges imposed by African states.
- ✓ *Goal*: Map out disparities, identify excessive or duplicate fees, and develop benchmarks for harmonisation.

Establish Tax Harmonisation Guidelines under SAATM

- ✓ *Action:* Release formal guidelines for standardising taxes and charges, with caps on non-aeronautical levies (e.g., tourism or travel taxes).
- ✓ *Goal*: Prevent over-taxation, especially on regional and low-cost carriers, and protect market liberalisation progress.

Build a Digital Charges & Fees Monitoring Portal

- ✓ *Action:* Create a real-time, public-facing portal listing all taxes, fees, and charges per state and airport, regularly updated.
- ✓ *Goal*: Promote transparency, help airlines plan costs, and support passenger awareness.

Engage in Capacity Building for Member States

- ✓ *Action*: Train civil aviation and finance authorities on cost-recovery principles, ICAO guidelines, and economic regulation of aviation services.
- ✓ *Goal*: Help states understand the balance between tax revenue and market growth.

Use Peer Pressure and Incentives

- ✓ *Action*: Publish annual scorecards or performance indexes ranking states on tax fairness, transparency, and alignment with SAATM goals.

✓ *Goal*: Encourage reform through recognition, technical assistance, and eventually, financial or air access incentives.

Facilitate Dialogue Between Governments and Industry

✓ *Action*: Establish a permanent AFCAC-led platform for dialogue between regulators, finance ministries, airports, and airlines.

✓ *Goal*: Align fiscal and aviation development strategies through collaborative policymaking.

How AFCAC Can Track & Measure Impact

Key Metrics for AFCAC's Aviation Tax Compliance Index

- Passenger traffic growth per country.
- Reduction in airfare costs (before & after-tax harmonisation).
- New airline routes added due to lower operating costs.
- Increase in intra-African trade due to better connectivity.

AFCAC must publish an annual SAATM Aviation Tax Impact Report to measure success.

Long-Term Vision

AFCAC must transition from being just a technical body to becoming a continental aviation policy harmoniser, therefore, setting the tone for fair, growth-oriented aviation economics that balance sovereignty with regional integration.

AFCAC must evolve into a proactive continental regulator that not only supports safety and liberalisation goals but also ensures that aviation taxation across Africa aligns with global best practices. By prioritising harmonisation, AFCAC can drive down travel costs, stimulate competition, and strengthen Africa's global aviation competitiveness.

Outcome: A harmonised tax, charge, and fee framework will accelerate SAATM implementation, reduce barriers to intra-African air connectivity, and unlock sustainable growth in the African aviation market.

Policy Recommendations for AFCAC to Implement a Harmonised Aviation Taxes & Charges Model Under SAATM

To ensure the successful implementation of harmonised aviation taxes, AFCAC (African Civil Aviation Commission) must take a leadership role in aligning government policies, engaging stakeholders, and enforcing compliance. The following recommendations provide a practical roadmap for AFCAC to push for a unified taxation model under SAATM (Single African Air Transport Market).

Policy Alignment & Legislative Reforms

- Objective: Ensure all African countries adopt a standardised aviation tax framework to reduce operational costs and improve connectivity.
- Adopt a Continental Aviation Taxation Framework (CATF).
- AFCAC should develop and enforce a uniform taxation policy covering:
    - Airport charges (landing, parking, passenger service fees),
    - Fuel levies & handling fees,
    - Overflight & navigation charges, and
    - Value-added taxes on air transport.
- Integrate Aviation Taxes with AfCFTA.

AFCAC should work closely with AfCFTA Secretariat to harmonise aviation taxes and charges across member states, treating aviation as a strategic enabler of intra-African trade and mobility.

Key Steps:

1. *Policy Alignment*:

Advocate for aviation taxes and charges to be treated as trade facilitation tools under AfCFTA protocols, not revenue-centric instruments. This can lower air travel costs and boost regional trade.

2. *Tax Harmonisation Framework*:

Develop a continental framework for standardising or capping aviation taxes and fees, especially those on intra-African routes. This reduces cost barriers and promotes airline route expansion.

3. Incentives for Liberalisation:

AFCAC can propose tax breaks or reduced charges for airlines operating under the SAATM (Single African Air Transport Market), encouraging more intra-African connections aligned with AfCFTA goals.

4. Joint Monitoring Committee:

Establish an AFCAC-AfCFTA working group to track the impact of aviation-related taxes on trade volumes, logistics costs, and passenger flows across the continent.

AFCAC should work with AfCFTA to remove non-tariff barriers affecting intra-African air travel. This can be achieved by capping aviation TFCs at 5-7% of total airfare to enhance affordability. Furthermore, engage ECOWAS, EAC, SADC, COMESA, and IGAD to standardise airport fees across borders

Fiscal Incentives for Airlines & Airports

- Objective: Reduce airline operating costs and encourage new intra-African routes.
- Tax Rebates for Airlines expanding Intra-African Networks.

- Governments should offer tax incentives for airlines launching new regional routes. Example: 5-year tax exemption on fuel levies for airlines operating intra-African flights.
- Zero-Rated VAT on Aviation Services

Apply 0% VAT on aircraft parts, maintenance, and airline services to lower costs.

Model this after successful policies in UAE & Singapore, which eliminated VAT on aviation services (e.g. Zero-rating of international aviation services through the implementation of a specific Goods and Service Tax (GST) on aviation; zero-rating of qualifying aircraft and spare parts and approve GST Scheme for registered businesses).

- Lower Fuel Levies to International Standards.
- Reduce aviation fuel taxes to below USD 0.50 per litre, aligning with global averages.

Strategic Steps for AFCAC to lower Fuel Levies

Fuel levies in many African states are significantly higher than international norms, raising airline operating costs, which are then passed on to passengers through higher fares. To make African aviation more competitive and support AfCFTA and SAATM, AFCAC can take targeted actions to reduce and harmonise these levies.

➢ *Benchmark and Publish Fuel Levy Standards*

✓ Conduct a comprehensive audit of current fuel levies across all African Union (AU) member states.

✓ Compare them to ICAO benchmarks, and best practices from competitive aviation hubs (e.g., Singapore, UAE).

✓ Publish a policy paper highlighting the economic impact of excessive levies.

Outcome: Builds awareness and provides clear data to support reform

➢ *Establish a Fuel Levy Harmonisation Framework*

✓ Propose a continental cap or guideline for fuel taxes and levies, aligned with ICAO's "no double taxation" principle.

✓ Encourage regional economic communities (RECs) to adopt this framework via mutual agreements.

Outcome: Reduces tax fragmentation and creates a level playing field for airlines.

➢ *Leverage SAATM as a Compliance Incentive*

Tie fuel levy reductions to benefits under SAATM (Single African Air Transport Market), such as:

✓ Priority for route allocations,

- ✓ Reduced airport charges, and
- ✓ Technical and regulatory support.

***Outcome**:* Encourages states to align voluntarily through economic incentives.

➢ *Engage Finance Ministries and Petroleum Authorities*

Work with the African Union Commission and AfDB to facilitate dialogue between:

- ✓ Civil aviation authorities,
- ✓ Ministries of Finance/Energy, and
- ✓ Fuel suppliers and refiners.

Provide case studies showing how lower levies impact air traffic and tax revenue over time.

Outcome: Builds cross-sector buy-in and overcomes resistance.

➢ *Offer Technical Assistance & Funding Models*

- ✓ Coordinate with ICAO and AFRAA to provide technical assistance for:
  - Policy design, and
  - Fuel supply chain optimisation.
- ✓ Explore subsidy or hedging schemes for landlocked or high-cost states (e.g., using Afreximbank facilities).

Outcome: Helps states manage transition costs and infrastructure gaps.

Below Figure 117 is a Project Proposal timeline for investigating fuel levy harmonisation in Africa.

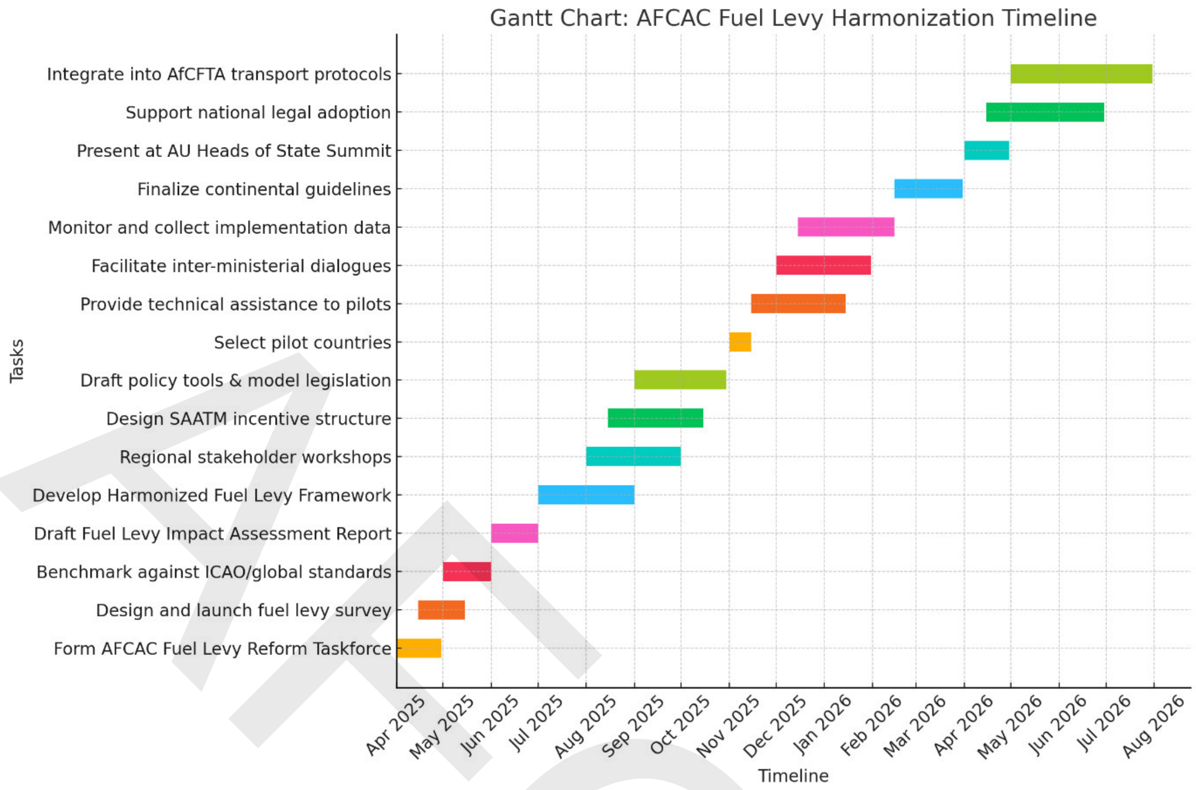


Figure 117 AFCAC fuel levy Gantt chart; Source: Compiled by Author

Here are some strategies that could help harmonise jet fuel fees across Africa:

➢ *Establishing Regional Fuel Pricing Mechanisms*

Pan-African Fuel Pricing Body: Establishing a central Pan-African fuel pricing body or working through an existing regional body like the (AFCAC could help standardise fuel prices across the continent. This body would monitor fuel pricing trends, negotiate with fuel suppliers, and help set common guidelines for fuel pricing based on regional needs.

Transparent Pricing Models: The pricing body should establish clear and transparent pricing formulas that incorporate factors like crude oil prices, logistics costs, and taxes. This would make it easier for airlines to forecast fuel costs, thus reducing volatility.

Regional Pricing Agreements: Governments and fuel suppliers could collaborate to establish regional fuel pricing agreements, which could involve setting a common baseline price for jet fuel in specific sub-regions (e.g., West Africa, East Africa, Southern Africa). These agreements could consider local factors such as infrastructure and transport costs but ensure a more aligned approach to pricing across borders.

➢ *Creating Fuel Procurement Pools*

Bulk Procurement and Pooling: African countries or airlines within specific regions could form fuel procurement pools. By pooling their fuel purchasing power, countries or airlines can negotiate better prices with suppliers, leveraging economies of scale. This strategy has been used successfully in other regions like Europe, where airlines combine their demand for fuel to negotiate more competitive rates.

Shared Infrastructure for Fuel Distribution: The creation of regional fuel distribution hubs and shared infrastructure could reduce the costs associated with transporting fuel to airports across the continent. This could lead to more consistent fuel pricing and reduced operational costs for fuel suppliers.

- *Increasing Transparency and Data Sharing*

Fuel Price Transparency: Implementing a transparent fuel pricing mechanism would require fuel suppliers, airlines, and governments to share data on pricing formulas, fuel production costs, and logistical challenges. This could help airlines better understand why fuel prices vary and allow them to identify opportunities for cost-saving measures.

Centralised Fuel Price Information Platform: A regional or continental fuel price information platform could be created where fuel suppliers and airlines can regularly update and access current fuel prices across Africa. This would promote transparency and allow airlines to make more informed purchasing decisions, leading to better planning and reducing pricing disparities.

- *Improving Fuel Supply Chain Efficiency*

Infrastructure Investment: Fuel costs are often inflated by inefficient transportation infrastructure, including road networks, pipelines, and fuel storage facilities. Investment in shared regional infrastructure (like fuel pipelines) and the construction of modern fuel storage and distribution centres could help reduce logistics costs, which in turn would contribute to lower fuel prices.

Improving Local Refining Capacity: Africa imports a significant portion of its aviation fuel, which drives up the cost of fuel due to transportation costs. Encouraging investment in local refining capacity for jet fuel could help African countries become more self-sufficient, reducing reliance on international supply chains and lowering overall fuel costs.

- *Encouraging Competition and Market Liberalisation*

Liberalising the Fuel Market: Some African countries have monopolistic fuel supply chains, where a single supplier controls fuel distribution. Opening the fuel supply market to more suppliers and promoting competition could help lower fuel prices. Airlines and airports would benefit from having access to a more competitive fuel market, where they could shop around for the best prices.

Introducing Independent Fuel Supply Companies: Encouraging independent fuel suppliers to enter the market can introduce competition and transparency in pricing. This could be done through policies that encourage private-sector participation in the fuel supply chain.

➢ *Promoting Regional Cooperation in Fuel Pricing*

Inter-Governmental Agreements: African governments could enter into bilateral or multilateral agreements on fuel pricing and supply. For example, countries in a region like East Africa or West Africa could sign agreements with regional suppliers to standardise fuel prices within the region.

Coordination of National Fuel Policies: Governments across Africa could work together to ensure that their national fuel policies do not negatively impact neighbouring countries. By aligning fuel-related policies across borders, it would be easier to manage and stabilise prices for airlines operating regionally.

➢ *Standardising Fuel Quality and Specifications*

Common Fuel Standards: Harmonising fuel specifications across Africa could help ensure that airlines do not face additional costs associated with different fuel standards in various countries. Establishing common quality standards for aviation fuel would ensure that airlines only need to manage one fuel standard, reducing complexity and ensuring operational efficiency.

➢ Strengthening Regulatory & Compliance Mechanisms

- ✓ Objective: Ensure African states fully implement harmonised aviation taxation.

AFCAC Aviation Tax Compliance Index *(See separate Model for guidance).

- ✓ Publish annual country rankings on tax compliance under SAATM.
- ✓ Sanctions for non-compliant states, such as denied access to Yamoussoukro Decision (YD) benefits.

Cross-Border Taxation Agreements

- ✓ Establish reciprocal agreements to remove double taxation on airlines operating between African states.

Independent Price Regulation Body

- ✓ Establish an African Aviation Economic Regulator (AAER) to:
  - ✓ Monitor airport charges and prevent excessive pricing.
  - ✓ Recommend fee adjustments based on economic impact analysis.

➢ Public-Private Sector Collaboration & Infrastructure Development

- ✓ *Objective*: Mobilise investment to upgrade airport infrastructure and reduce dependence on high airport fees.

PPP Model for Airport Infrastructure

- ✓ Encourage Public-Private Partnerships (PPPs) to fund airport expansions, reducing reliance on passenger service fees.

- ✓ Example: Ethiopia's Bole International Airport expansion, which used private investment.

Launch an African Aviation Infrastructure Fund (AAIF)

- AFCAC should partner with Afreximbank, AfDB, and private investors to create a $5B aviation fund.
- Funds should be used to modernise regional airports & reduce airport charges.

➢ High-Level Advocacy & Political Engagement

- ✓ *Objective*: Secure government buy-in for tax harmonisation reforms.

Engage AU Heads of State to Adopt an Executive Declaration

- AFCAC must push for an AU-wide declaration mandating:
  - ✓ The elimination of excessive aviation taxes.
  - ✓ Commitment to reducing passenger service charges.
  - ✓ Incentives for airlines investing in intra-African connectivity.

Develop an AFCAC SAATM Implementation Task Force

- ✓ Appoint aviation tax policy experts & airline executives to oversee SAATM's taxation reforms.
- ✓ Task force must report quarterly to AU Transport Ministers on progress & challenges.

AFCAC's Roadmap to a Cost-Effective African Aviation Market

By implementing these five policy strategies, AFCAC can successfully drive aviation tax harmonisation under SAATM, reducing costs, boosting air connectivity, and unlocking billions in economic potential.

- Need for a Standardised Airport Charge System
  - ✓ The wide variations in charges for short stays (0-2 hours) suggest a lack of uniform policy across African airports.
  - ✓ AFCAC should introduce a continent-wide tariff framework to regulate parking & handling fees.
- Encouraging Cost-Effective Policies for Short-Term Parking
  - Airports with very high short-term parking fees may be discouraging transit and layover flights.
  - Implement tiered pricing models:
    - ✓ Free parking for first 30-60 minutes to encourage more transit passengers.
    - ✓ Reduced charges for quick turnarounds to improve airline efficiency.
- Regional Economic Blocs as a Model for Standardisation
  - The consistent pricing for regional departures (CEMAC, DRC, Angola) suggests that regional coordination reduces fee volatility.
  - AFCAC should use CEMAC as a model to harmonise airport charges across Africa, under the SAATM framework.

Towards a More Predictable Airport Charging System

Using data highlights the urgent need for harmonised airport charges in Africa. While regional policies (like in CEMAC) show positive signs of standardisation, inconsistencies in short-term parking fees can make airline operations unpredictable.

Steps to Harmonising Aviation Taxes and Charges

- Establish an African Aviation Charges and Taxes Policy
  - African Union (AU) and AFCAC (African Civil Aviation Commission) should draft a continent-wide aviation tax and charges framework to ensure consistency.
  - Align with international best practices from ICAO (International Civil Aviation Organization) and IATA (International Air Transport Association).
- Regional Economic Communities (RECs) Coordination
  - RECs (ECOWAS, EAC, SADC, COMESA, etc.) should standardise airport and aviation fees within their blocs before expanding to a continental model.

- Develop a Regional Aviation Tax and Charges Agreement (RATCA) to align policies across neighbouring states.

➢ Reduce or Eliminate Unnecessary Fees

- Conduct an audit of all aviation-related charges (e.g., passenger service charges, fuel levies, security fees, VAT).
- Phase out duplicate fees that increase air travel costs without adding value.
- Implement progressive tax models that incentivise new routes and intra-African connectivity.

➢ Create a Single African Aviation Tax Code

- Define transparent taxation principles to avoid arbitrary charges by national authorities.
- Introduce a ceiling on airport charges to maintain affordability.
- Adopt a common formula for calculating landing, navigation, and passenger charges based on international standards.

AFCAC's Role in Driving Harmonisation

AFCAC, as the SAATM implementing body, should:

- Monitor compliance with harmonised taxation policies.
- Establish an Aviation Tax Harmonisation Task Force within AFCAC
- Engage with governments, airlines, and airport operators to negotiate lower fees.
- Promote incentives for states that align their taxation policies with SAATM.

➢ Implement Fuel Price Standardisation

- Develop regional fuel pricing benchmarks to prevent extreme variations.
- Encourage bulk purchasing agreements for fuel suppliers to reduce costs.
- Support the development of local refining capacity to decrease dependence on imported jet fuel.

➢ Introduce a Digital Aviation Tax Platform

- A centralised online portal should be created to track aviation-related taxes and charges across African states.
- This will ensure transparency, predictability, and uniform application of aviation charges.

➢ Expected Benefits of a Harmonised System

✓ Lower Airfares: A standardised tax system will reduce ticket prices, making air travel more affordable.

- ✓ More Airline Routes: Airlines will be more willing to expand intra-African operations due to reduced operational costs.
- ✓ Boost to SAATM: A harmonised tax system will help SAATM achieve full liberalisation of African skies.
- ✓ Economic Growth: Increased air traffic will stimulate tourism, trade, and investment across African markets.
- ✓ Improved Global Competitiveness: Africa will become a more attractive hub for international airlines and investors.

Data-Driven Recommendations for Harmonising Aviation Taxes, Charges & Fees in Africa

➢ Develop a Pan-African Aviation Tax Database

Why:
There is currently no central, regularly updated source tracking aviation-related taxes, charges, and fees across all AU member states.

What to Do:

- Create a digital platform mapping all current taxes and charges by country, airport, and route type (domestic, intra-African, international).
- Include variables like: passenger service charges, departure/arrival taxes, fuel levies, airport fees, VAT on tickets, etc.
- Update annually with cooperation from national civil aviation authorities.

Impact:
Enables benchmarking and transparency to identify excessive and outlier charges.

➢ Apply Economic Modelling to Assess Impact of Taxes

Why:
Quantitative analysis shows how high aviation taxes suppress demand, particularly for intra-African travel.

What to Do:

- Use econometric models (e.g., demand elasticity or gravity models) to simulate how changes in tax levels affect:
  - Passenger volume
  - Ticket prices
  - Airline route profitability
- Analyse demand scenarios for various tax reduction options (10%, 25%, 50%).

Impact:

Informs policy with evidence on how tax reforms could drive traffic growth and economic activity.

➢ Score and Rank Countries Using a “Tax Burden Index”

Why:

A comparable index can incentivise states to reduce aviation costs.

What to Do:

- Develop an Aviation Tax Burden Index based on:
    - Total taxes/fees per ticket (USD),
    - Percent of fare that goes to government charges, and
    - Fuel levies per litre.
- Rank countries and reward top performers with SAATM branding or technical support.

Impact:

Creates peer pressure and recognition for pro-reform states.

➢ Incorporate Harmonisation into SAATM Compliance Audits

Why:

Harmonising fees is critical for fair competition under SAATM.

What to Do:

- Add tax and fee harmonisation metrics into AFCAC’s SAATM compliance toolkit.
- Define acceptable thresholds (e.g., passenger charges <15% of fare on intra-African routes).
- Provide customised reform roadmaps for high-cost countries.

Impact:

Links harmonisation directly to SAATM benefits and implementation incentives.

➢ Use Geographic Information System (GIS) & Traffic Data to Identify “High-Potential, High-Cost” Routes

Why:

Focus efforts where change could drive the most impact.

What to Do:

- Use route-level traffic and fare data to identify intra-African markets with:
    - Strong passenger demand,
    - Excessive total charges, and
    - Competing alternatives (e.g., road, sea).

- Prioritise these for bilateral or multilateral tax negotiations.

Impact:

Drives targeted harmonisation where the ROI is highest.

➢ Pilot Real-Time Digital Fee Calculators with Airlines

Why:

Airlines struggle with the opacity and inconsistency of charges across airports.

What to Do:

- Partner with IATA and AFRAA to develop a fee calculator API for ticket pricing systems.
- Show live breakdowns of taxes, fees, and airport charges by route and class.

Impact:

Promotes transparency, airline planning efficiency, and passenger trust.

Data & Analytics Infrastructure

What's Needed:

- Aviation Charges & Taxes Database across all AU member states
- Real-time data collection tools from airlines, airports, and authorities
- Analytical platforms for modelling the impact of taxes and fees on:
    - Demand elasticity,
    - Airline economics, and
    - Trade and tourism flows.

Use Case: Supports evidence-based policymaking and performance tracking.

Summary of Tools for Data-Driven Harmonisation

Tool	Purpose
Tax Database	Map and monitor current charges
Economic Modelling	Predict effects of tax changes
Tax Burden Index	Benchmark and motivate reform
SAATM Audit Integration	Make harmonisation a compliance item
Route Analytics	Prioritise high-impact reform zones
Fee Transparency Tools	Support airlines and travellers

Table 59 Tools for Data-driven harmonisation; Source: Compiled by Author

How Africa Can Harmonise Ground Handling Charges – A Strategic Framework

Ground handling charges in Africa vary widely across airports and countries, often lacking transparency, regulatory oversight, or alignment with international standards. These discrepancies lead to higher airline operating costs, especially for intra-African flights, limiting the effectiveness of liberalisation efforts like SAATM and AfCFTA.

Here's a structured plan for how Africa can harmonise ground handling charges, led by AFCAC in collaboration with national aviation authorities and regional economic communities.

- Establish a Continental Benchmarking Study

Action:

- Conduct a detailed audit and mapping of current ground handling charges at all international and secondary African airports.
- Include disaggregated charges for:
    - Ramp services,
    - Baggage handling,
    - Passenger services,
    - Aircraft cleaning,
    - Fuelling assistance, and
    - Equipment use fees.

Output: African Ground handling Charges Database.

Identify outliers and excessive markups compared to ICAO/IATA benchmarks.

- Define a Regulatory Harmonisation Framework

Action:

- AFCAC should lead development of a "Continental Ground handling Charges Policy Framework" that includes:
    - Maximum allowable mark-ups (cost-plus or margin-based pricing).
    - Uniform definition of ground handling service categories.
    - Regulatory oversight standards for pricing transparency.

Example Guideline:

"Total ground handling fees should not exceed 10–15% of total airport operating costs for a narrow-body aircraft."

- Promote Market Liberalisation in Ground handling Services

Problem:
Many airports in Africa operate monopolies or duopolies in ground handling, reducing competitive pressure and efficiency.

Solution:

- Encourage competitive tendering of ground handling licenses.
- Cap exclusive license periods (e.g., 3–5 years max).
- Provide clear regulatory guidelines to prevent anti-competitive behaviour.

Impact:
Competition helps reduce costs and improve service quality.

➢ Link Harmonisation to SAATM and Airport Certification

Action:

- Make harmonised ground handling charges a compliance item in:
  - SAATM Implementation Audits, and
  - Airport Service Quality Assessments (with ACI Africa).
- Offer AFCAC certification/recognition for airports complying with harmonised pricing guidelines.

Impact:
Creates motivation for states to reform practices and align charges

➢ Encourage Transparency via Digital Tools

Action:

- Create a centralised online portal or dashboard listing approved and published ground handling charges by airport.
- Mandate fee disclosure at point of contracting for all airlines.

Impact:
Increases market discipline and reduces informal overcharging.

➢ Technical Assistance & Capacity Building

Support Needed:

- AFCAC and ICAO can offer workshops to help:
  - Civil aviation authorities understand cost-based pricing models.
  - Airports and ground handling agents improve cost control and pricing practices.

Harmonising ground handling charges across Africa is not only feasible, but it's essential for reducing the cost of intra-African aviation. AFCAC, working with regional regulators, can lead this transformation through benchmarking, regulation, liberalisation, and digital transparency.

Recommendations for Reducing Air Service Navigation Charges

- Regional Harmonisation of Charges
  - ✓ Implement a unified charging system: African countries should collaborate under regional aviation bodies (e.g., AFCAC, ICAO, and IATA) to standardise air navigation fees.
  - ✓ Reduce variability across borders: Currently, each country applies different airspace fees, discouraging airlines from using certain routes. A uniform pricing model across RECs (Regional Economic Communities) like ECOWAS, SADC, and EAC can eliminate extreme cost disparities.

Example:

EUROCONTROL's model in Europe has standardised en-route fees, ensuring predictability and cost efficiency for airlines. Africa could adopt a similar framework

- Adoption of Cost-Based Pricing Models
- Many African ANSPs base charges on revenue generation rather than operational costs.
- *Solution*: Implement cost-based pricing, where fees reflect actual service delivery costs rather than arbitrary government-set rates.

Outcome:

- Lower fees would attract more airlines, leading to higher air traffic volumes and increased overall revenue.

- Increase Public-Private Partnerships (PPPs)
  - Privatisation & PPPs in Air Traffic Management (ATM) can reduce operational costs while improving service efficiency.
  - Successful examples like South Africa's ATNS (Air Traffic and Navigation Services) and Nigerian airspace management reforms show how private investment improves service while maintaining affordability.

- Improve Air Traffic Management Efficiency
  - Upgrade air navigation technology (CNS/ATM systems) to optimise air traffic flow and reduce unnecessary route extensions.
  - Invest in satellite-based navigation systems like SBAS (Satellite-Based Augmentation System) instead of expensive ground-based infrastructure.

Benefit:

- Airlines save fuel and reduce emissions, lowering operational costs and service charges.

- Government Tax Reductions & Subsidies
  - Eliminate unnecessary surcharges and hidden fees that inflate navigation costs.
  - Offer tax incentives for airlines and ANSPs to invest in modern, cost-effective air traffic management solutions.
- Strengthen Regional Cooperation in Air Navigation Services
  - Joint control centres for airspace management (e.g., UACC – Upper Airspace Control Centres) can reduce duplication of infrastructure costs.
  - Example: ASECNA manages 17 African countries' airspaces efficiently, reducing costs.
- Adopting a Uniform Charging Model
  - *Flat or Distance-Based Charges*: African countries could explore adopting a uniform air navigation charge model, such as flat rates or distance-based charges (like the European model). This would simplify and standardise the charges that airlines pay when flying across multiple countries in the region.
  - *Regional Rate Setting*: A regional rate-setting body could determine and review air navigation charges, taking into account local conditions but ensuring consistency across borders.
- Sharing Best Practices and Data
  - *Data and Information Sharing*: African countries should share data on air traffic volumes, costs of operations, and performance standards. This would allow for more accurate decision-making and ensure that air navigation charges are aligned with regional needs and traffic patterns.
  - *Best Practices*: Countries could exchange best practices on air traffic management, technological solutions, and efficient air navigation systems to reduce operational costs and improve service quality. This can help create a more unified approach to pricing.
- Phased Approach
  - *Gradual Harmonisation*: A phased approach might be required, where countries gradually align their charging systems and improve their air navigation infrastructures over time. This could involve starting with a pilot project or harmonisation within a sub-region (e.g., EAC or ECOWAS).

Monitoring and Evaluation: Continuous monitoring and evaluation of the progress towards harmonisation would ensure that the implementation of the new system is effective and that it meets the goals of fairness, efficiency, and sustainability.

- Public Awareness and Stakeholder Engagement
  - *Engaging Stakeholders*: Governments, airlines, air traffic controllers, and passengers should be involved in discussions on the need for harmonising air navigation charges. Stakeholder buy-in is critical to ensure the successful implementation of harmonised systems.

- *Public Campaigns*: Public campaigns could be used to inform citizens about the benefits of harmonising air navigation charges, including improved efficiency, lower operating costs for airlines, and increased connectivity.

Here are some best practices from other regions that could be relevant for reducing air navigation charges in Africa:

Europe: Single European Sky (SES) Initiative

- Objective: The Single European Sky (SES) initiative was introduced to increase the efficiency of air traffic management and reduce the overall cost of air navigation services in Europe. This was done by restructuring the European airspace, improving the use of air traffic management systems, and reducing fragmentation of ANSPs.
- *Key Measures*:
    - *Functional Airspace Blocks (FABs):* Europe divided its airspace into Functional Airspace Blocks (FABs), which enabled countries to pool their resources and manage air traffic services more efficiently across borders.
    - *Performance-Based Charging*: European countries adopted performance-based charging mechanisms, where air navigation charges are linked to the quality of service and cost efficiency, rather than purely on a cost-recovery basis.
    - *Efficiency Gains*: The SES initiative helped reduce unnecessary duplication of infrastructure and services, leading to cost reductions.
- **Relevance to Africa**: Africa could explore the concept of functional airspace blocks (FABs) across sub-regions (e.g., East Africa, West Africa) to enhance cooperation between countries, reduce duplication of services, and optimise air traffic management. A more efficient allocation of resources would lower the overall cost of air navigation services and reduce charges.

North America: U.S. Federal Aviation Administration (FAA) and Canada's NAV CANADA

- Objective: Both the FAA in the United States and NAV CANADA provide examples of how privatisation, efficiency, and technological innovation can lead to reduced air navigation charges.
- *Key Measures:*
    - Privatisation of Services (NAV CANADA): NAV CANADA, a private, non-profit organisation, manages air navigation services in Canada. By privatising these services, NAV CANADA was able to operate more efficiently and reduce charges over time while maintaining high levels of safety and service.

- Cost Recovery and Efficiency: The FAA operates a cost-recovery model for air navigation services but has continuously focused on improving operational efficiency and reducing unnecessary costs.
- Technological Innovation: Both countries have heavily invested in technologies like NextGen (FAA), which aims to modernise air traffic management systems to improve efficiency and capacity.

- **Relevance to Africa**: Africa could consider the possibility of privatising air navigation services, as NAV CANADA did, to improve efficiency and reduce costs. Additionally, investment in technology to modernize air traffic management (e.g., automated systems, satellite-based navigation) could lead to reduced operational costs and lower air navigation charges.

Latin America: Civil Aviation System in Brazil

- Objective: Brazil has implemented strategies to improve the cost-effectiveness of air navigation services, focusing on operational efficiency and optimising airspace management.
- *Key Measures*:
  - *Consolidation of Air Navigation Services*: Brazil consolidated air traffic control services to increase efficiency. This included centralising air traffic management in a single national organisation, which helped streamline operations.
  - *Technology Adoption*: Brazil invested in modern air navigation technologies, including satellite-based navigation systems, to improve air traffic control and reduce the need for ground-based infrastructure.
  - *Cost Efficiency*: Brazil implemented performance-based measures to ensure that air navigation charges were not only cost-efficient but also linked to the quality and performance of services provided.
- Relevance to Africa: Africa could adopt a centralised or consolidated air navigation system for regions with smaller countries or low traffic, allowing for shared infrastructure and economies of scale. Additionally, Africa could benefit from adopting satellite-based navigation systems (such as GNSS) to reduce reliance on ground infrastructure, which can be costly to maintain.

Asia-Pacific: Airservices Australia

- *Objective*: Airservices Australia is responsible for managing air navigation services across Australia. It has made significant strides in reducing costs while maintaining safety and operational standards.

- *Key Measures*:
    - *User-Pay Model*: Airservices Australia adopted a user-pay model where airlines pay air navigation charges based on their usage of air traffic services, rather than a flat fee. This allows airlines to pay only for the services they use, improving cost fairness.
    - *Public-Private Partnership (PPP):* Airservices Australia operates as a government-owned corporation, focusing on cost recovery, service improvements, and efficiency.
    - *Technological Integration*: Investment in cutting-edge air traffic management technology has allowed Airservices Australia to reduce costs and improve service delivery.
- **Relevance to Africa:** African countries could adopt a user-pay model, where airlines pay air navigation charges based on actual usage (e.g., flight distance, time in airspace). This would create a fairer and more flexible charging system, reducing the financial burden on airlines. Additionally, the PPP model could be explored as a means of introducing more efficiency and private sector investment.

Middle East: Gulf Cooperation Council (GCC) States Cooperation

- *Objective:* The GCC states (e.g., UAE, Qatar, Saudi Arabia) have worked together to harmonise aviation policies and improve efficiency in the aviation sector.
- *Key Measures*:
    - *Regional Coordination:* The GCC has worked to harmonise aviation regulations, including air navigation services, to create a seamless and cost-efficient airspace for airlines.
    - *Shared Infrastructure*: The region has increasingly relied on shared air traffic management infrastructure to reduce the costs of providing services in multiple countries.
- **Relevance to Africa**: African countries could follow a similar model of regional cooperation to harmonise air navigation charges and share infrastructure. This could be done through the creation of regional airspace management bodies that work together to provide services at lower costs.

Key Takeaways for Africa:

- *Regional Cooperation*: Africa could benefit from regional ANSPs and functional airspace blocks (FABs), like Europe, to reduce fragmentation, share costs, and improve efficiency.
- *Privatisation/PPP Models:* Like NAV CANADA and Airservices Australia, privatisation or public-private partnerships could help improve operational efficiency and reduce costs.

- *Technology Integration*: Investment in modern technologies, such as satellite-based navigation (GNSS) and automation, could help reduce reliance on expensive infrastructure.
- *User-Pay Systems*: Implementing a user-pay model, based on actual service usage, could make air navigation charges more flexible and fairer.

By adopting best practices from other regions and tailoring them to Africa's needs, the continent could reduce air navigation charges, improve the competitiveness of its aviation industry, and stimulate economic growth.

The harmonisation of aviation taxes, fees, and charges is a strategic priority for the AFCAC to achieve the full potential of the SAATM and the AfCFTA. Current inconsistencies in cost structures across African airports and routes create an uneven playing field, hinder airline competitiveness, and inflate travel costs for passengers and cargo operators.

To address this challenge, AFCAC must lead a coordinated, data-driven approach that involves policy harmonisation, regional cooperation, economic modelling, stakeholder engagement, and regulatory reform. This includes developing a continent-wide aviation tax database, creating a regulatory framework for harmonised charges, and integrating fee transparency and compliance into SAATM performance indicators.

The successful implementation of this initiative will require a blend of institutional authority, technical capacity, financial support, digital infrastructure, and political will. With the right resources, AFCAC can guide African states towards adopting cost structures that are competitive, transparent, and aligned with international best practices.

The harmonisation of aviation taxes, fees, and charges across Africa is not just a technical reform—it is a transformative lever for unlocking affordable air travel, equitable market access, and deeper continental integration. As the regulatory arm of African aviation, AFCAC is uniquely positioned to lead this effort by aligning policy, data, and political will. Through transparent regulation, data-driven decision-making, and strategic partnerships, we can eliminate the fiscal barriers that fragment our skies and replace them with a framework that supports seamless, efficient, and inclusive air connectivity. This is not only essential for the success of SAATM and AfCFTA, but also it is a necessary step toward Africa's aviation renaissance.

AFCAC, in collaboration with the AU and RECs, must lead efforts to simplify, standardise, and regulate aviation TCFs across Africa. A harmonised approach will unlock the full potential of African aviation, reducing costs and increasing intra-African connectivity under SAATM.

Best Practices

- States should ensure that ***a legal framework for the collection of charges*** is in place. Airports and ANSPs or, where applicable, a State, should have an effective system for the collection of charges. Accounting systems must be precise and invoicing accurate. The system should also include credit control and enforceable recovery procedures. It is recommended that the entity responsible for air navigation services consider participating in joint charges collection when it is advantageous. This is in line with the compliance of the ICAO Doc 9082 on policies and charges.

- The role of the State in the provision of ***economic oversight*** should be clearly defined to ensure that responsibilities are separated from the operation and provision of airports and ANSPs with roles and powers clearly defined for each function. Here, the main purpose of economic oversight should be to balance the interests of airports and ANSPs, including government-operated providers, and public policy objectives with a clear mandate of transparency on who is the beneficiary of TCFs and how these are reinvested into improving the aviation sector.
- All airports on the continent should maintain a ***cost data repository*** that is sufficient to facilitate consultation with various stakeholders when addressing airport charges and fees. This will ensure a level of transparency and economic oversight. To achieve best practices, it may be recommendable to develop more aggregated cost bases in certain circumstances for the purpose of setting charges. However, the aggregation should be done in a logical and transparent manner accompanied by safeguards, as appropriate, regarding consultation and, where possible, agreements with users to avoid discrimination among users.
- At most, ANSPs in Africa can charge at the same level as in the Middle East, which has low air navigation charges, as Africa's density of traffic is even lower. Therefore, any productivity gain to ***reduce Air Navigation charges*** will contribute to improve the competitiveness of air transport in Africa.

RESEARCH GAPS

This study made an attempt to explore and analyse the TCFs impacting the African aviation landscape, the findings of which can act as a baseline for further studies. This will, however, include a continental-wide analysis and the utilisation of various data sources to add more robustness to future studies. The study focused on the SAATM-PIP states as part of the AFCAC study expectations. However, the following research gaps are pivotal in terms of strengthening the understanding of the dynamic aviation industry in Africa. Without clear documentation of the fixed and variable costs incurred by each service provider, it is difficult to assess whether flights are being charged in accordance with the true cost they are imposing on the system. The following streams of research could fill the gaps of understanding the landscape of Africa's aviation market.

- Examine how changes in airline prices due to changes in TFCs will impact competition, traffic volume etc.
- Explore the impact of the various charge scenarios on user stakeholder groups in terms of aircraft size, intra-Africa distance, and origin-destination regions.
- The resulting complexity for the system's users and the lack of consistency among the charging schemes calls for further studies that may lead to a harmonised charging scheme.
- Conduct further studies based on a large sample of actual flight records within the continent of Africa or even at the REC level to investigate potential *en route* service charging schemes and their impact on stakeholders. The potential estimates on such a study for the analysis of *en route* charge harmonisation in Africa will certainly provide the foundation for future broader discussions on user charge harmonisation.
- Flight information records over a defined time period need to be defined.
- The raw data can be at the FIR level for each flight (i.e., each flight had several records, one for each FIR entered). Using a database management tool, the raw data can be processed into individual flight records, including flags for FIRs entered, actual distances travelled in each FIR, origin-destination pair, aircraft type, and MTOW.
- Future studies will need to be conducted in order to incorporate flight identifiers (military, humanitarian, test flights).
- Future work could explore the implications of a fully harmonised system for both service providers and user stakeholders.
- To pursue a complete analysis of the equity of a harmonised charging system, one would need information on the actual costs of providing air navigation services.

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APPENDIX 1

Charge types and categories based on country and airport code

Country Code	Airport Code	Charge Type	Charge Category
CI	ABJ	Airport Charges	Security
CV	BVC	Airport Charges	Security
CG	BZV	Airport Charges	Security
CV	MMO	Airport Charges	Security
CG	OLL	Airport Charges	Security
CG	PNR	Airport Charges	Security
CV	RAI	Airport Charges	Security
CV	SFL	Airport Charges	Security
CV	SID	Airport Charges	Security
CV	SNE	Airport Charges	Security
CV	VXE	Airport Charges	Security
GH	ACC	Airport Charges	Security
ET	ADD	Airport Charges	Security
GM	BJL	Airport Charges	Security
GA	LBV	Airport Charges	Security
MZ	APL	Airport Charges	Security
MZ	BEW	Airport Charges	Security
MA	CMN	Airport Charges	Security
KE	EDL	Airport Charges	Security
KE	KIS	Airport Charges	Security
KE	MBA	Airport Charges	Security
MZ	MPM	Airport Charges	Security
KE	NBO	Airport Charges	Security
MA	RAK	Airport Charges	Security
KE	WIL	Airport Charges	Security
SN	CSK	Airport Charges	Security
SN	DKR	Airport Charges	Security
SN	DSS	Airport Charges	Security
RW	KGL	Airport Charges	Security
NA	KMP	Airport Charges	Security
NA	LUD	Airport Charges	Security
NA	NDU	Airport Charges	Security
NA	OND	Airport Charges	Security
NA	WDH	Airport Charges	Security
NA	WVB	Airport Charges	Security
TG	LFW	Airport Charges	Security
ZM	LUN	Airport Charges	Security
CI	ABJ	Airport Charges	Common User Terminal Equipment (CUTE)
NG	ABV	Airport Charges	Common User Terminal Equipment (CUTE)
MA	AGA	Airport Charges	Common User Terminal Equipment (CUTE)
MA	CMN	Airport Charges	Common User Terminal Equipment (CUTE)
ZA	CPT	Airport Charges	Common User Terminal Equipment (CUTE)

Country Code	Airport Code	Charge Type	Charge Category
ZA	DUR	Airport Charges	Common User Terminal Equipment (CUTE)
NG	ERS	Airport Charges	Common User Terminal Equipment (CUTE)
MA	FEZ	Airport Charges	Common User Terminal Equipment (CUTE)
CD	FIH	Airport Charges	Common User Terminal Equipment (CUTE)
ZA	JNB	Airport Charges	Common User Terminal Equipment (CUTE)
NG	KAN	Airport Charges	Common User Terminal Equipment (CUTE)
NG	LOS	Airport Charges	Common User Terminal Equipment (CUTE)
ZM	LUN	Airport Charges	Common User Terminal Equipment (CUTE)
MZ	MPM	Airport Charges	Common User Terminal Equipment (CUTE)
NG	PHC	Airport Charges	Common User Terminal Equipment (CUTE)
ZA	PLZ	Airport Charges	Common User Terminal Equipment (CUTE)
MA	RAK	Airport Charges	Common User Terminal Equipment (CUTE)
MA	TNG	Airport Charges	Common User Terminal Equipment (CUTE)
GM	BJL	Airport Charges	Development
SN	CSK	Airport Charges	Development
SN	DKR	Airport Charges	Development
CM	DLA	Airport Charges	Development
SN	DSS	Airport Charges	Development
CD	FIH	Airport Charges	Development
CM	GOU	Airport Charges	Development
TG	LFW	Airport Charges	Development
ZM	LUN	Airport Charges	Development
NE	NIM	Airport Charges	Development
CM	NSI	Airport Charges	Development
CI	ABJ	Airport Charges	Cargo
MA	AGA	Airport Charges	Cargo
MZ	APL	Airport Charges	Cargo
ER	ASM	Airport Charges	Cargo
MZ	BEW	Airport Charges	Cargo
CF	BGF	Airport Charges	Cargo
BI	BJM	Airport Charges	Cargo
ML	BKO	Airport Charges	Cargo
GQ	BSG	Airport Charges	Cargo
CV	BVC	Airport Charges	Cargo
CG	BZV	Airport Charges	Cargo
MA	CMN	Airport Charges	Cargo
BJ	COO	Airport Charges	Cargo
SN	CSK	Airport Charges	Cargo
SN	DKR	Airport Charges	Cargo
CM	DLA	Airport Charges	Cargo
SN	DSS	Airport Charges	Cargo
YT	DZA	Airport Charges	Cargo
MA	FEZ	Airport Charges	Cargo
CD	FIH	Airport Charges	Cargo
SL	FNA	Airport Charges	Cargo
CM	GOU	Airport Charges	Cargo
KM	HAH	Airport Charges	Cargo

Country Code	Airport Code	Charge Type	Charge Category
DJ	JIB	Airport Charges	Cargo
DJ	JIB	Airport Charges	Cargo
SD	KRT	Airport Charges	Cargo
AO	LAD	Airport Charges	Cargo
GA	LBV	Airport Charges	Cargo
TG	LFW	Airport Charges	Cargo
ZM	LUN	Airport Charges	Cargo
CV	MMO	Airport Charges	Cargo
MZ	MPM	Airport Charges	Cargo
TD	NDJ	Airport Charges	Cargo
NE	NIM	Airport Charges	Cargo
MR	NKC	Airport Charges	Cargo
MG	NOS	Airport Charges	Cargo
CM	NSI	Airport Charges	Cargo
CG	OLL	Airport Charges	Cargo
BF	OUA	Airport Charges	Cargo
CG	PNR	Airport Charges	Cargo
CV	RAI	Airport Charges	Cargo
MA	RAK	Airport Charges	Cargo
RE	RUN	Airport Charges	Cargo
CV	SFL	Airport Charges	Cargo
CV	SID	Airport Charges	Cargo
CV	SNE	Airport Charges	Cargo
GQ	SSG	Airport Charges	Cargo
ST	TMS	Airport Charges	Cargo
MG	TNR	Airport Charges	Cargo
CV	VXE	Airport Charges	Cargo
CD	FIH	Airport Charges	Aviation / Airport Tax
TD	NDJ	Airport Charges	Aviation / Airport Tax
BF	OUA	Airport Charges	Aviation / Airport Tax
CI	ABJ	Airport Charges	Passenger Service
CF	BGF	Airport Charges	Passenger Service
CV	BVC	Airport Charges	Passenger Service
CG	BZV	Airport Charges	Passenger Service
CM	DLA	Airport Charges	Passenger Service
CM	GOU	Airport Charges	Passenger Service
CM	NSI	Airport Charges	Passenger Service
CG	OLL	Airport Charges	Passenger Service
GH	ACC	Airport Charges	Passenger Service
ET	ADD	Airport Charges	Passenger Service
ET	BJR	Airport Charges	Passenger Service
GA	LBV	Airport Charges	Passenger Service
MA	AGA	Airport Charges	Passenger Service
MZ	APL	Airport Charges	Passenger Service
MZ	BEW	Airport Charges	Passenger Service
MA	CMN	Airport Charges	Passenger Service
KE	EDL	Airport Charges	Passenger Service

Country Code	Airport Code	Charge Type	Charge Category
MA	FEZ	Airport Charges	Passenger Service
KE	KIS	Airport Charges	Passenger Service
KE	MBA	Airport Charges	Passenger Service
MZ	MPM	Airport Charges	Passenger Service
KE	NBO	Airport Charges	Passenger Service
MA	RAK	Airport Charges	Passenger Service
MA	TNG	Airport Charges	Passenger Service
KE	WIL	Airport Charges	Passenger Service
NG	ABV	Airport Charges	Passenger Service
SN	CSK	Airport Charges	Passenger Service
SN	DKR	Airport Charges	Passenger Service
SN	DSS	Airport Charges	Passenger Service
NG	ERS	Airport Charges	Passenger Service
NG	KAN	Airport Charges	Passenger Service
NA	KMP	Airport Charges	Passenger Service
NG	LOS	Airport Charges	Passenger Service
NA	LUD	Airport Charges	Passenger Service
NA	NDU	Airport Charges	Passenger Service
NE	NIM	Airport Charges	Passenger Service
NA	OND	Airport Charges	Passenger Service
NG	PHC	Airport Charges	Passenger Service
NA	WDH	Airport Charges	Passenger Service
NA	WVB	Airport Charges	Passenger Service
ZA	CPT	Airport Charges	Passenger Service
ZA	DUR	Airport Charges	Passenger Service
ZA	JNB	Airport Charges	Passenger Service
TG	LFW	Airport Charges	Passenger Service
ZM	LUN	Airport Charges	Passenger Service
ZA	PLZ	Airport Charges	Passenger Service
CV	BVC	Airport Charges	Passenger Service
CV	MMO	Airport Charges	Passenger Service
CV	RAI	Airport Charges	Passenger Service
CV	SFL	Airport Charges	Passenger Service
CV	SID	Airport Charges	Passenger Service
CV	SNE	Airport Charges	Passenger Service
CV	VXE	Airport Charges	Passenger Service
ZA	CPT	Airport Charges	Passenger Service
ZA	DUR	Airport Charges	Passenger Service
ZA	JNB	Airport Charges	Passenger Service
ZA	PLZ	Airport Charges	Passenger Service
CI	ABJ	ATC Charges	Terminal Navigation
CF	BGF	ATC Charges	Terminal Navigation
CV	BVC	ATC Charges	Terminal Navigation
CM	DLA	ATC Charges	Terminal Navigation
CM	GOU	ATC Charges	Terminal Navigation
CM	NSI	ATC Charges	Terminal Navigation
CV	RAI	ATC Charges	Terminal Navigation

Country Code	Airport Code	Charge Type	Charge Category
CV	SID	ATC Charges	Terminal Navigation
GH	ACC	ATC Charges	Terminal Navigation
ET	ADD	ATC Charges	Terminal Navigation
GM	BJL	ATC Charges	Terminal Navigation
GA	LBV	ATC Charges	Terminal Navigation
NG	ABV	ATC Charges	Terminal Navigation
MZ	APL	ATC Charges	Terminal Navigation
MZ	BEW	ATC Charges	Terminal Navigation
KE	EDL	ATC Charges	Terminal Navigation
NG	ERS	ATC Charges	Terminal Navigation
NG	KAN	ATC Charges	Terminal Navigation
KE	KIS	ATC Charges	Terminal Navigation
NA	KMP	ATC Charges	Terminal Navigation
NG	LOS	ATC Charges	Terminal Navigation
NA	LUD	ATC Charges	Terminal Navigation
KE	MBA	ATC Charges	Terminal Navigation
MZ	MPM	ATC Charges	Terminal Navigation
KE	NBO	ATC Charges	Terminal Navigation
NA	NDU	ATC Charges	Terminal Navigation
NE	NIM	ATC Charges	Terminal Navigation
NA	OND	ATC Charges	Terminal Navigation
NG	PHC	ATC Charges	Terminal Navigation
NA	WDH	ATC Charges	Terminal Navigation
KE	WIL	ATC Charges	Terminal Navigation
NA	WVB	ATC Charges	Terminal Navigation
SN	CSK	ATC Charges	Terminal Navigation
SN	DKR	ATC Charges	Terminal Navigation
SN	DSS	ATC Charges	Terminal Navigation
RW	KGL	ATC Charges	Terminal Navigation
TG	LFW	ATC Charges	Terminal Navigation
ZM	LUN	ATC Charges	Terminal Navigation
CM	DLA	Fuel Charges	Throughput
CM	NSI	Fuel Charges	Throughput
KE	MBA	Fuel Charges	Throughput
SN	DSS	Fuel Charges	Throughput
ZA	JNB	Fuel Charges	Throughput
TG	LFW	Fuel Charges	Throughput
ZA	CPT	Fuel Charges	Throughput
CI	ABJ	Fuel Charges	Throughput
CI	ABJ	Fuel Charges	Airport Fuel Fee
CF	BGF	Fuel Charges	Airport Fuel Fee
CG	BZV	Fuel Charges	Airport Fuel Fee
CM	DLA	Fuel Charges	Airport Fuel Fee
CM	GOU	Fuel Charges	Airport Fuel Fee
CM	NSI	Fuel Charges	Airport Fuel Fee
GH	ACC	Fuel Charges	Airport Fuel Fee
ET	ADD	Fuel Charges	Airport Fuel Fee

Country Code	Airport Code	Charge Type	Charge Category
GM	BJL	Fuel Charges	Airport Fuel Fee
CV	BVC	Fuel Charges	Airport Fuel Fee
CV	RAI	Fuel Charges	Airport Fuel Fee
CV	SID	Fuel Charges	Airport Fuel Fee
MA	AGA	Fuel Charges	Airport Fuel Fee
MA	AHU	Fuel Charges	Airport Fuel Fee
MA	CMN	Fuel Charges	Airport Fuel Fee
KE	EDL	Fuel Charges	Airport Fuel Fee
MA	FEZ	Fuel Charges	Airport Fuel Fee
MZ	MPM	Fuel Charges	Airport Fuel Fee
KE	NBO	Fuel Charges	Airport Fuel Fee
MA	RAK	Fuel Charges	Airport Fuel Fee
MA	TNG	Fuel Charges	Airport Fuel Fee
NG	ABV	Fuel Charges	Airport Fuel Fee
SN	CSK	Fuel Charges	Airport Fuel Fee
SN	DKR	Fuel Charges	Airport Fuel Fee
SN	DSS	Fuel Charges	Airport Fuel Fee
NG	ERS	Fuel Charges	Airport Fuel Fee
NG	KAN	Fuel Charges	Airport Fuel Fee
NG	LOS	Fuel Charges	Airport Fuel Fee
NE	NIM	Fuel Charges	Airport Fuel Fee
NG	PHC	Fuel Charges	Airport Fuel Fee
ZA	JNB	Fuel Charges	Airport Fuel Fee
TG	LFW	Fuel Charges	Airport Fuel Fee
ZM	LUN	Fuel Charges	Airport Fuel Fee
GH	ACC	Fuel Charges	Airport Fuel Fee
MZ	APL	Fuel Charges	Airport Fuel Fee
MZ	BEW	Fuel Charges	Airport Fuel Fee
MZ	MPM	Fuel Charges	Airport Fuel Fee
TZ	DAR	Fuel Charges	Concession
BW	GBE	Fuel Charges	Concession
EG	HBE	Fuel Charges	Concession
ZW	HRE	Fuel Charges	Concession
TZ	JRO	Fuel Charges	Concession
ZM	LUN	Fuel Charges	Concession
KE	MBA	Fuel Charges	Concession
GA	LBV	Govt. Taxation	Air Passenger
NE	NIM	Govt. Taxation	Air Passenger
ZA	CPT	Govt. Taxation	Air Passenger
ZA	DUR	Govt. Taxation	Air Passenger
ZA	JNB	Govt. Taxation	Air Passenger
ZA	PLZ	Govt. Taxation	Air Passenger
CI	ABJ	Govt. Taxation	Aviation / Airport Tax
ET	ADD	Govt. Taxation	Aviation / Airport Tax
ET	BJR	Govt. Taxation	Aviation / Airport Tax
YT	DZA	Govt. Taxation	Aviation / Airport Tax
YT	DZA	Govt. Taxation	Aviation / Airport Tax

Country Code	Airport Code	Charge Type	Charge Category
RE	RUN	Govt. Taxation	Aviation / Airport Tax
CF	BGF	Govt. Taxation	Security Tax
GQ	BSG	Govt. Taxation	Security Tax
CD	FIH	Govt. Taxation	Security Tax
SD	KRT	Govt. Taxation	Security Tax
GQ	SSG	Govt. Taxation	Security Tax
ST	TMS	Govt. Taxation	Security Tax
MA	AGA	Govt. Taxation	Tourism Tax
GM	BJL	Govt. Taxation	Tourism Tax
ML	BKO	Govt. Taxation	Tourism Tax
MA	CMN	Govt. Taxation	Tourism Tax
BJ	COO	Govt. Taxation	Tourism Tax
TN	DJE	Govt. Taxation	Tourism Tax
MA	FEZ	Govt. Taxation	Tourism Tax
TN	MIR	Govt. Taxation	Tourism Tax
TN	NBE	Govt. Taxation	Tourism Tax
BF	OUA	Govt. Taxation	Tourism Tax
MA	RAK	Govt. Taxation	Tourism Tax
MA	TNG	Govt. Taxation	Tourism Tax
TN	TUN	Govt. Taxation	Tourism Tax

APPENDIX 2

Noise charges

REGION	COUNTRY CODE	AIRPORT CODE	AIRPORT NAME	CHARGE TYPE	CHARGE CATEGORY	TYPE INT/DOM	SCHEME OF CHARGES
AFRICA	CG	BZV	Brazzaville - Maya-Maya Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CG	OLL	Oyo - Ollombo Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CG	PNR	Pointe-Noire - Pointe-Noire Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CM	DLA	Douala - Douala International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CM	DLA	Douala - Douala International Airport	Airport Charges	Noise	All Traffic	Not Specified
AFRICA	CM	GOU	Garoua - Garoua International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CM	NSI	Yaoundé - Nsimalen International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	BVC	Boa Vista Island - Rabil Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	MMO	Maio Island - Maio Island Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	RAI	Praia - Praia International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	RAI	Praia - Praia International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	RAI	Praia - Praia International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	SFL	São Filipe - São Filipe Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	SID	Ilha Do Sal - Amílcar Cabral International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	SNE	Sao Nicalau Island - Preguiça Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	CV	VXE	Sao Vicente Island - Sao Pedro Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ET	ADD	Addis Ababa - Bole International Airport	Airport Charges	Noise	All Traffic	Not Specified
AFRICA	ET	BJR	Bahar Dar - Bahar Dar Airport	Airport Charges	Noise	All Traffic	Not Specified
AFRICA	GH	ACC	Accra - Kotoka International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	GM	BJL	Banjul - Banjul International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	GM	BJL	Banjul - Banjul International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	EDL	Eldoret - Eldoret International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	EDL	Eldoret - Eldoret International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	EDL	Eldoret - Eldoret International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	KIS	Kisumu - Kisumu Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	MBA	Mombasa - Moi International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	NBO	Nairobi - Jomo Kenyatta International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	KE	WIL	Nairobi - Wilson Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MA	AGA	Agadir - Al Massira Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MA	CMN	Casablanca - Mohammed V International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MA	FEZ	Fes - Saïss Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MA	RAK	Marrackech - Menara Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MZ	APL	Nampula - Nampula Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MZ	BEW	Beira - Beira Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	MZ	BEW	Beira - Beira Airport	Airport Charges	Noise	All Traffic	Not Specified
AFRICA	MZ	MPM	Maputo - Maputo International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	KMP	Keetmanshoop - Keetmanshoop Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	KMP	Keetmanshoop - Keetmanshoop Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	LUD	Lüderitz - Lüderitz Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	NDU	Rundu - Rundu Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	OND	Ondangwa - Ondangwa Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	WDH	Windhoek - Hosea Kutako International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NA	WVB	Walvis Bay - Walvis Bay Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NE	NIM	Niamey - Diori Hamani International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	NG	LOS	Lagos - Murtala Muhammed International Airport	Airport Charges	Noise	All Traffic	Not Charged

REGION	COUNTRY CODE	AIRPORT CODE	AIRPORT NAME	CHARGE TYPE	CHARGE CATEGORY	TYPE INT/DOM	SCHEME OF CHARGES
AFRICA	RW	KGL	Kigali - Kigali International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	TG	LFW	Lome - G. Eyadema International Airport	Airport Charges	Noise	All Traffic	Not Specified
AFRICA	ZA	CPT	Cape Town - Cape Town International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	CPT	Cape Town - Cape Town International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	DUR	Durban - King Shaka International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	DUR	Durban - King Shaka International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	JNB	Johannesburg - O. R. Tambo International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	JNB	Johannesburg - O. R. Tambo International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	PLZ	Port Elizabeth - Port Elizabeth Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZA	PLZ	Port Elizabeth - Port Elizabeth Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZM	LUN	Lusaka - Lusaka International Airport	Airport Charges	Noise	All Traffic	Not Charged
AFRICA	ZM	LUN	Lusaka - Lusaka International Airport	Airport Charges	Noise	All Traffic	Not Charged

APPENDIX 3

Formulas used in the methodology section

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CI	ABJ	Airport Charges	Landing	International & Regional	75 - 150 tonnes	Unit Rate * MTOW_Metric Ton
CI	ABJ	Airport Charges	Landing	Domestic	75 - 150 tonnes	Unit Rate * MTOW_Metric Ton
CF	BGF	Airport Charges	Landing	International	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CF	BGF	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CG	BZV	Airport Charges	Landing	International & Regional	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CG	BZV	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CG	OLL	Airport Charges	Landing	International & Regional	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CG	OLL	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CG	PNR	Airport Charges	Landing	International & Regional	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
CG	PNR	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
GH	ACC	Airport Charges	Landing	Intercontinental / Long - Haul	75 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
GH	ACC	Airport Charges	Landing	Sub - Regional Day-time/ Off peak	75 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
GH	ACC	Airport Charges	Landing	Sub - Regional Night time/ Peak	75 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
GH	ACC	Airport Charges	Landing	Domestic		Unit Rate * ROUNDUP(MTOW_Metric Ton, 0) Fixed charge for 0–10 tonnes, additional 15 USD per each additional 10-tonne interval
ET	ADD	Airport Charges	Landing	All Traffic	Over 40,000 pounds	Unit Rate x MTOW_per 1,000lbs over 40,000 lbs (clustered, see formula)
ET	BJR	Airport Charges	Landing	All Traffic	Over 40,000 pounds	Unit Rate x MTOW_per 1,000lbs over 40,000 lbs (clustered, see formula)
GA	LBV	Airport Charges	Landing	International & Regional	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
GA	LBV	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
MZ	APL	Airport Charges	Landing	All Traffic	Over 5,700 kilograms	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
MZ	BEW	Airport Charges	Landing	All Traffic	Over 5,700 kilograms	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
KE	EDL	Airport Charges	Landing	Day Landing	40,000 - 80,000 kilograms	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
KE	EDL	Airport Charges	Landing	Night Landing	40,000 - 80,000 kilograms	Fixed Charges
KE	KIS	Airport Charges	Landing	Day Landing	40,000 - 80,000 kilograms	Fixed Charges
KE	KIS	Airport Charges	Landing	Night Landing	40,000 - 80,000 kilograms	Fixed Charges

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
KE	MBA	Airport Charges	Landing	Day Landing	40,000 - 80,000 kilograms	Fixed Charges
KE	MBA	Airport Charges	Landing	Night Landing	40,000 - 80,000 kilograms	Fixed Charges
MZ	MPM	Airport Charges	Landing	All Traffic	Over 5,700 kilograms	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
KE	NBO	Airport Charges	Landing	Day Landing	40,000 - 80,000 kilograms	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
KE	NBO	Airport Charges	Landing	Night Landing	40,000 - 80,000 kilograms	Fixed Charges
KE	WIL	Airport Charges	Landing	Day Landing	40,000 - 80,000 kilograms	Fixed Charges
KE	WIL	Airport Charges	Landing	Night Landing	40,000 - 80,000 kilograms	Fixed Charges
SN	CSK	Airport Charges	Landing	International	75.01 - 150 tonnes	Unit Rate * MTOW_Metric Ton
SN	CSK	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * MTOW_Metric Ton
SN	DKR	Airport Charges	Landing	International	75.01 - 150 tonnes	Unit Rate * MTOW_Metric Ton
SN	DKR	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
SN	DSS	Airport Charges	Landing	International	75 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
SN	DSS	Airport Charges	Landing	Domestic	75 - 150 tonnes	Unit Rate * MTOW_Metric Ton
RW	KGL	Airport Charges	Landing	All Traffic	Over 50 tonnes	Unit Rate * MTOW_Metric Ton
NA	KMP	Airport Charges	Landing	All Traffic	Over 10 tonnes	Unit Rate * MTOW_Metric Ton
NA	LUD	Airport Charges	Landing	All Traffic	Over 10 tonnes	Fixed Charges + Unit Rate * ROUNDUP(MTOW_Metric Ton - 10 , 0)
NA	NDU	Airport Charges	Landing	All Traffic	Over 10 tonnes	Fixed Charges + Unit Rate * ROUNDUP(MTOW_Metric Ton - 10 , 0)
NE	NIM	Airport Charges	Landing	International	75.01 - 150 tonnes	Fixed Charges + Unit Rate * ROUNDUP(MTOW_Metric Ton - 10 , 0)
NE	NIM	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
NA	OND	Airport Charges	Landing	All Traffic	Over 10 tonnes	Unit Rate * ROUNDUP(MTOW_Metric Ton, 0)
NA	WDH	Airport Charges	Landing	All Traffic	Over 10 tonnes	Fixed Charges + Unit Rate * ROUNDUP(MTOW_Metric Ton - 10 , 0)
NA	WVB	Airport Charges	Landing	All Traffic	Over 10 tonnes	Fixed Charges + Unit Rate * ROUNDUP(MTOW_Metric Ton - 10 , 0)
ZA	CPT	Airport Charges	Landing	International	Over 10,000 kilograms	Fixed Charges + Unit Rate * ROUNDUP(MTOW_Metric Ton - 10 , 0)
ZA	CPT	Airport Charges	Landing	Regional	Over 10,000 kilograms	Fixed Charges + Unit Rate * ROUNDUP((MTOW_Kilograms - 10000) / 2000, 0)
ZA	CPT	Airport Charges	Landing	Domestic	Over 10,000 kilograms	Fixed Charges +(Unit Rate * ROUNDUP((MTOW_Kilograms - 10000) / 2000, 0))
TG	LFW	Airport Charges	Landing	International	75.01 - 150 tonnes	Fixed Charges + (Unit Rate * ROUNDUP((MTOW_Kilograms - 10000) / 2000, 0))
TG	LFW	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	ROUNDUP(Unit Rate * MTOW_Metric Ton, 0)
CM	DLA	Airport Charges	Landing	International & Regional	75.01 - 150 tonnes	MAX(Unit Rate * ROUNDUP(MTOW_Metric Ton, 0), 1308)

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CM	DLA	Airport Charges	Landing	Domestic	75.01 - 150 tonnes	Unit Rate * MTOW_Metric Ton
CI	ABJ	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MA	AGA	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
MZ	APL	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
ER	ASM	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MZ	BEW	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
CF	BGF	Airport Charges	Cargo	All Traffic	Loaded / Unloaded	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
BI	BJM	Airport Charges	Cargo	All Traffic	Inbound or Outbound	Unit Rate * Cargo_Kilograms
ML	BKO	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
GQ	BSG	Airport Charges	Cargo	All Traffic	Loaded & Unloaded	Unit Rate * Cargo_Kilograms
CV	BVC	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
CG	BZV	Airport Charges	Cargo	International & Regional	International & Regional	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
CG	BZV	Airport Charges	Cargo	Domestic	Domestic	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MA	CMN	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
BJ	COO	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
SN	CSK	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
SN	DKR	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0) * 2
CM	DLA	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
CM	DLA	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
SN	DSS	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms * 2
YT	DZA	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
YT	DZA	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
MA	FEZ	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
CD	FIH	Airport Charges	Cargo	International	International	Unit Rate * Cargo_Kilograms
CD	FIH	Airport Charges	Cargo	Domestic	Domestic	Unit Rate * Cargo_Kilograms
SL	FNA	Airport Charges	Cargo	Cargo Royalty Fee	Cargo Royalty Fee	Unit Rate * Cargo_Kilograms
CM	GOU	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
CM	GOU	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
KM	HAH	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
DJ	JIB	Airport Charges	Cargo	All Traffic	Per kg loaded or unloaded	Unit Rate * Cargo_Kilograms
DJ	JIB	Airport Charges	Cargo	All Traffic	Per kg Khat unloaded	Unit Rate * Cargo_Kilograms
SD	KRT	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
SD	KRT	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
SD	KRT	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
SD	KRT	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
AO	LAD	Airport Charges	Cargo	All Traffic	Consignments subject to customs clearance at embarkation or disembarkation	Unit Rate * Cargo_Kilograms
AO	LAD	Airport Charges	Cargo	All Traffic	Consignments not subject to customs clearance at embarkation	Unit Rate * Cargo_Kilograms
GA	LBV	Airport Charges	Cargo	International	International	Unit Rate * Cargo_Kilograms
GA	LBV	Airport Charges	Cargo	Domestic	Domestic	Unit Rate * Cargo_Kilograms
GA	LBV	Airport Charges	Cargo	Regional	Regional (CEMAC)	Unit Rate * Cargo_Kilograms
TG	LFW	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Kilograms
TG	LFW	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Kilograms
ZM	LUN	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
CV	MMO	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MZ	MPM	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
TD	NDJ	Airport Charges	Cargo	ASECNA part	ASECNA part	Unit Rate * Cargo_Kilograms
TD	NDJ	Airport Charges	Cargo	ADAC part	ADAC part	Unit Rate * Cargo_Kilograms
NE	NIM	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
MR	NKC	Airport Charges	Cargo	International	International	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MR	NKC	Airport Charges	Cargo	Domestic	Domestic	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MG	NOS	Airport Charges	Cargo	International & Regional	International & Regional	Unit Rate * Cargo_Metric Ton
MG	NOS	Airport Charges	Cargo	Domestic	Domestic	MAX(Unit Rate * Cargo_Metric Ton, 0.128)
CM	NSI	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
CM	NSI	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
CG	OLL	Airport Charges	Cargo	International & Regional	International & Regional	Unit Rate * Cargo_Kilograms

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CG	OLL	Airport Charges	Cargo	Domestic	Domestic	Unit Rate * Cargo_Kilograms
BF	OUA	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
CG	PNR	Airport Charges	Cargo	International & Regional	International & Regional	Unit Rate * Cargo_Kilograms
CG	PNR	Airport Charges	Cargo	Domestic	Domestic	Unit Rate * Cargo_Kilograms
CV	RAI	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
MA	RAK	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
RE	RUN	Airport Charges	Cargo	Import	Import	Unit Rate * Cargo_Metric Ton
RE	RUN	Airport Charges	Cargo	Export	Export	Unit Rate * Cargo_Metric Ton
CV	SFL	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
CV	SID	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
CV	SNE	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
GQ	SSG	Airport Charges	Cargo	All Traffic	Loaded & Unloaded	Unit Rate * Cargo_Kilograms
ST	TMS	Airport Charges	Cargo	Embarked	Embarked	Unit Rate * Cargo_Kilograms
ST	TMS	Airport Charges	Cargo	Disembarked	Disembarked	Unit Rate*Cargo_Kilograms
MA	TNG	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * Cargo_Kilograms
MG	TNR	Airport Charges	Cargo	International & Regional	International & Regional	Unit Rate * Cargo_Metric Ton
MG	TNR	Airport Charges	Cargo	Domestic	Domestic	MAX(Unit Rate * Cargo_Metric Ton, 0.128)
CV	VXE	Airport Charges	Cargo	All Traffic	Cargo Charge	Unit Rate * ROUNDUP(Cargo_Kilograms, 0)
CI	ABJ	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CI	ABJ	Airport Charges	Security	Regional	Regional Departures (ECOWAS)	Unit Rate * Total Departing Pax
CI	ABJ	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	BVC	Airport Charges	Security	International	International	Unit Rate * Total Departing Pax
CV	BVC	Airport Charges	Security	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Security	Regional	Regional Departures	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	MMO	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CV	MMO	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Security	Domestic	International Departures	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CG	OLL	Airport Charges	Security	International	Regional Departures	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Security	Regional	Domestic Departures	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Security	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	RAI	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CV	RAI	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	SFL	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CV	SFL	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	SID	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CV	SID	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	SNE	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CV	SNE	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CV	VXE	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
CV	VXE	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
GH	ACC	Airport Charges	Security	All Traffic	Not Charged	
ET	ADD	Airport Charges	Security	All Traffic	Origin & Destination	Unit Rate * Total Departing Pax
ET	ADD	Airport Charges	Security	All Traffic	Transit/Transfer	Unit Rate * (Transit Pax + Transfer Pax)
GM	BJL	Airport Charges	Security	All Traffic	All Traffic	Unit Rate * Total Departing Pax
GA	LBV	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
GA	LBV	Airport Charges	Security	Regional	Regional Departures (CEMAC)	Unit Rate * Total Departing Pax
GA	LBV	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
MZ	APL	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
MZ	APL	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
MZ	BEW	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
MZ	BEW	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Security	International & Regional	International & Regional	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Security	Domestic	Domestic	Unit Rate * Total Departing Pax
KE	EDL	Airport Charges	Security	All Traffic	Not Specified	

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
KE	KIS	Airport Charges	Security	All Traffic	Not Specified	
KE	MBA	Airport Charges	Security	All Traffic	Not Specified	
MZ	MPM	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
MZ	MPM	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
KE	NBO	Airport Charges	Security	All Traffic	Not Specified	
MA	RAK	Airport Charges	Security	All Traffic	All Departures	Unit Rate * Total Departing Pax
KE	WIL	Airport Charges	Security	All Traffic	Not Charged	
SN	CSK	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
SN	DKR	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
SN	DKR	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
RW	KGL	Airport Charges	Security	All Traffic	All Departures	Unit Rate * Total Departing Pax
NA	KMP	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
NA	KMP	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
NA	LUD	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
NA	LUD	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
NA	NDU	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
NA	NDU	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
NA	OND	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
NA	OND	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
NA	WDH	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
NA	WDH	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
NA	WVB	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
NA	WVB	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
TG	LFW	Airport Charges	Security	International	International Departures	Unit Rate * Total Departing Pax
TG	LFW	Airport Charges	Security	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
TG	LFW	Airport Charges	Security	All Traffic	Transfer	Unit Rate * Transfer Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
ZM	LUN	Airport Charges	Security	International	International	Unit Rate * Total Pax
ZM	LUN	Airport Charges	Security	Domestic	Domestic	Unit Rate * Total Pax
CI	ABJ	Airport Charges	CUTE	Origin & Destination	Origin & Destination	Unit Rate * Origin & Destination Pax
CI	ABJ	Airport Charges	CUTE	Transfer	Transfer	Unit Rate * Transfer Pax
NG	ABV	Airport Charges	CUTE	International Departures	International Departures	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	CUTE	All Departures	0 - 200,000 passengers per year	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	CUTE	All Departures	200,001 - 400,000 passengers per year	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	CUTE	All Departures	400,001 - 1,000,000 passengers per year	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	CUTE	All Departures	Over 1,000,000 passengers per year	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	CUTE	All Departures	0 - 200,000 passengers per year	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	CUTE	All Departures	200,001 - 400,000 passengers per year	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	CUTE	All Departures	400,001 - 1,000,000 passengers per year	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	CUTE	All Departures	Over 1,000,000 passengers per year	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	CUTE	Not Specified	Not Specified	
ZA	DUR	Airport Charges	CUTE	Not Specified	Not Specified	
NG	ERS	Airport Charges	CUTE	International Departures	International Departures	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	CUTE)	All Departures	0 - 200,000 passengers per year	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	CUTE	All Departures	200,001 - 400,000 passengers per year	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	CUTE	All Departures	400,001 - 1,000,000 passengers per year	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	CUTE	All Departures	Over 1,000,000 passengers per year	Unit Rate * Total Departing Pax
CD	FIH	Airport Charges	CUTE	All Departures	All Departures	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	CUTE	Not Specified	Not Specified	
NG	KAN	Airport Charges	CUTE	International Departures	International Departures	Unit Rate * Total Departing Pax
NG	LOS	Airport Charges	CUTE	International Departures	International Departures	Unit Rate * Total Departing Pax
ZM	LUN	Airport Charges	CUTE	All Departures	All Departures	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
MZ	MPM	Airport Charges	CUTE	All Departures	All Departures	Unit Rate * Total Departing Pax
NG	PHC	Airport Charges	CUTE	International Departures	International Departures	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	CUTE	Not Specified	Not Specified	
MA	RAK	Airport Charges	CUTE	All Departures	0 - 200,000 passengers per year	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	CUTE	All Departures	200,001 - 400,000 passengers per year	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	CUTE	All Departures	400,001 - 1,000,000 passengers per year	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	CUTE	All Departures	Over 1,000,000 passengers	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	CUTE	All Departures	0 - 200,000 passengers per year	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	CUTE	All Departures	200,001 - 400,000 passengers per year	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	CUTE	All Departures	400,001 - 1,000,000 passengers per year	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	CUTE	All Departures	Over 1,000,000 passengers per year	Unit Rate * Total Departing Pax
GM	BJL	Airport Charges	Development	All Departures	All Departures	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Development	International Departures (Economy Class)	International Departures (Economy Class)	Unit Rate * Total Economy Pax
SN	CSK	Airport Charges	Development	Domestic Departures	Domestic Departures	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Development	International Departures (Business/First Class)	International Departures (Business/First Class)	Unit Rate * (Total First Class Pax + Total Business Pax)
SN	CSK	Airport Charges	Development	Regional Departures (Business/First Class)	Regional Departures (Business/First Class)	Unit Rate * (Total First Class Pax + Total Business Pax)
SN	DKR	Airport Charges	Development	International Departures (Economy Class)	International Departures (Economy Class)	Unit Rate * Total Economy Pax
SN	DKR	Airport Charges	Development	Domestic Departures	Domestic Departures	Unit Rate * Total Departing Pax
SN	DKR	Airport Charges	Development	International Departures (Business/First Class)	International Departures (Business/First Class)	Unit Rate * (Total First Class Pax + Total Business Pax)
SN	DKR	Airport Charges	Development	Regional Departures (Business/First Class)	Regional Departures (Business/First Class)	Unit Rate * (Total First Class Pax + Total Business Pax)
CM	DLA	Airport Charges	Development	Not Charged	Not Charged	
SN	DSS	Airport Charges	Development	International Departures (Economy Class)	International Departures (Economy Class)	Unit Rate * Total Economy Pax
SN	DSS	Airport Charges	Development	Domestic Departures	Domestic Departures	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
SN	DSS	Airport Charges	Development	International Departures (Business/First Class)	International Departures (Business/First Class)	Unit Rate * (Total First Class Pax + Total Business Pax)
SN	DSS	Airport Charges	Development	Regional Departures (Business/First Class)	Regional Departures (Business/First Class)	Unit Rate * (Total First Class Pax + Total Business Pax)
CD	FIH	Airport Charges	Development	International	International	Unit Rate * Origin & Destination Pax
CD	FIH	Airport Charges	Development	Domestic	Domestic	Unit Rate * Origin & Destination Pax
CM	GOU	Airport Charges	Development	Origin & Destination	Origin & Destination	Unit Rate * Origin & Destination Pax
TG	LFW	Airport Charges	Development	Origin & Destination	Origin & Destination	Unit Rate * Origin & Destination Pax
TG	LFW	Airport Charges	Development	Transfer	Transfer	Unit Rate * Transfer Pax
ZM	LUN	Airport Charges	Development	International Departures	International Departures	Unit Rate * Total Departing Pax
ZM	LUN	Airport Charges	Development	Domestic Departures	Domestic Departures	Unit Rate * Total Departing Pax
NE	NIM	Airport Charges	Development	International & Regional Departures	International & Regional Departures	Unit Rate * Total Departing Pax
CM	NSI	Airport Charges	Development	Not Charged	Not Charged	
CD	FIH	Airport Charges	Aviation / Airport Tax	International	International	Unit Rate * Total Departing Pax
CD	FIH	Airport Charges	Aviation / Airport Tax	Domestic	Domestic	Unit Rate * Total Departing Pax
TD	NDJ	Airport Charges	Aviation / Airport Tax	International	International Departures	Unit Rate * Total Departing Pax
TD	NDJ	Airport Charges	Aviation / Airport Tax	Departures to ECCAS & ASECNA	Departures to Central African Economic Community & ASECNA	Unit Rate * Total Departing Pax
BF	OUA	Airport Charges	Aviation / Airport Tax	International	International Departures	Unit Rate * Total Departing Pax
BF	OUA	Airport Charges	Aviation / Airport Tax	Regional	Regional Departures	Unit Rate * Total Departing Pax
BF	OUA	Airport Charges	Aviation / Airport Tax	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CI	ABJ	Airport Charges	Passenger Service	All Traffic	All Departures	Unit Rate * Total Departing Pax
CF	BGF	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
CF	BGF	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CV	BVC	Airport Charges	Passenger Service	International	Adults	Unit Rate * Total Adult Pax
CV	BVC	Airport Charges	Passenger Service	International	Children (2 - 12 years old)	Unit Rate * Total Child Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CV	BVC	Airport Charges	Passenger Service	Domestic	Adults	Unit Rate * Total Adult Pax
CV	BVC	Airport Charges	Passenger Service	Domestic	Children (2 - 12 years old)	Unit Rate * Total Child Pax
CG	BZV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Regional	Regional (CEMAC, DRC and Angola)	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Regional	Regional (CEMAC, DRC and Angola)	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Regional	Regional (CEMAC, DRC and Angola)	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Regional	Regional (CEMAC, DRC and Angola)	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Regional	Regional (CEMAC, DRC and Angola)	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	BZV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CM	DLA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin & Destination Pax
CM	DLA	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Origin & Destination Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CM	DLA	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Origin & Destination Pax
CM	DLA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin & Destination Pax
CM	DLA	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Origin & Destination Pax
CM	DLA	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Origin & Destination Pax
CM	DLA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
CM	DLA	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Total Pax
CM	DLA	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Total Pax
CM	DLA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
CM	DLA	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Total Pax
CM	DLA	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Total Pax
CM	GOU	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin & Destination Pax
CM	GOU	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Origin & Destination Pax
CM	GOU	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Origin & Destination Pax
CM	GOU	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin / Destination Pax
CM	GOU	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Origin / Destination Pax
CM	GOU	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Origin / Destination Pax
CM	GOU	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
CM	GOU	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Total Pax
CM	GOU	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Total Pax
CM	NSI	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin & Destination Pax
CM	NSI	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Origin & Destination Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CM	NSI	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Origin & Destination Pax
CM	NSI	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin & Destination Pax
CM	NSI	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Origin & Destination Pax
CM	NSI	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Origin & Destination Pax
CM	NSI	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
CM	NSI	Airport Charges	Passenger Service	Regional	To ECOWAS States & Nigeria	Unit Rate * Total Pax
CM	NSI	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Total Pax
CG	OLL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CG	OLL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	OLL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
CG	PNR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
GH	ACC	Airport Charges	Passenger Service	Outside West african sub-region	Economy	Unit Rate * Total Economy Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
GH	ACC	Airport Charges	Passenger Service	Outside West african sub-region	Business	Unit Rate * Total Business Pax
GH	ACC	Airport Charges	Passenger Service	Outside West african sub-region	First class	Unit Rate * Total First Class Pax
GH	ACC	Airport Charges	Passenger Service	Regional	Within West African Sub - Region	Unit Rate * Total Departing Pax
GH	ACC	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
GH	ACC	Airport Charges	Passenger Service	Outside West african sub-region	Economy	Unit Rate * Total Economy Pax
GH	ACC	Airport Charges	Passenger Service	Outside West african sub-region	Business	Unit Rate * Total Business Pax
GH	ACC	Airport Charges	Passenger Service	Outside West african sub-region	First class	Unit Rate * Total First Class Pax
GH	ACC	Airport Charges	Passenger Service	Regional	Within West African Sub - Region	Unit Rate * Total Departing Pax
GH	ACC	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ET	ADD	Airport Charges	Passenger Service	International	International	Unit Rate * Origin / Destination Pax
ET	ADD	Airport Charges	Passenger Service	Transit (24 - 48 hours)	Transit (24 - 48 hours)	Unit Rate * Transit Pax
ET	ADD	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin / Destination Pax
ET	ADD	Airport Charges	Passenger Service	Transit (24 - 48 hours)	Transit (24 - 48 hours)	Unit Rate * Transfer Pax
ET	BJR	Airport Charges	Passenger Service	International	International	Unit Rate * Origin / Destination Pax
ET	BJR	Airport Charges	Passenger Service	Transit (24 - 48 hours)	Transit (24 - 48 hours)	Unit Rate * Transit Pax
ET	BJR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Origin / Destination Pax
ET	BJR	Airport Charges	Passenger Service	Transit (24 - 48 hours)	Transit (24 - 48 hours)	Unit Rate * Transfer Pax
GA	LBV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
GA	LBV	Airport Charges	Passenger Service	Regional	Regional (CEMAC)	Unit Rate * Total Departing Pax
GA	LBV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
GA	LBV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
GA	LBV	Airport Charges	Passenger Service	Regional	Regional (CEMAC)	Unit Rate * Total Pax
GA	LBV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
GA	LBV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Pax
GA	LBV	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Pax
GA	LBV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
MA	AGA	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	AGA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MZ	APL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MZ	APL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MZ	BEW	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MZ	BEW	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
MA	CMN	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	CMN	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
KE	EDL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
KE	EDL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
KE	EDL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Pax
KE	EDL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Pax
KE	EDL	Airport Charges	Passenger Service	International	International	Unit Rate*Total Pax
KE	EDL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate*Total Pax
MA	FEZ	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	FEZ	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
KE	KIS	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
KE	KIS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
KE	MBA	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
KE	MBA	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MZ	MPM	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MZ	MPM	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
KE	NBO	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
KE	NBO	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	RAK	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	Passenger Service	Regional	Regional (Africa and Europe)	Unit Rate * Total Departing Pax
MA	TNG	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
KE	WIL	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
KE	WIL	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	ABV	Airport Charges	Passenger Service	International	International Departures to ECOWAS	Unit Rate * Total Departing Pax
NG	ABV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
NG	ABV	Airport Charges	Passenger Service	All Traffic	All other International Departures	Unit Rate * Total Departing Pax
NG	ABV	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
NG	ABV	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	CSK	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	DKR	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	DKR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Passenger Service	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
SN	DSS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	ERS	Airport Charges	Passenger Service	International	International Departures to ECOWAS	Unit Rate * Total Departing Pax
NG	ERS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	ERS	Airport Charges	Passenger Service	All Traffic	All other International Departures	Unit Rate * Total Departing Pax
NG	ERS	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
NG	ERS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	KAN	Airport Charges	Passenger Service	International	International Departures to ECOWAS	Unit Rate * Total Departing Pax
NG	KAN	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	KAN	Airport Charges	Passenger Service	All Traffic	All other International Departures	Unit Rate * Total Departing Pax
NG	KAN	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
NG	KAN	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NA	KMP	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Domestic	Domestic (VAT excluded)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Regional	Regional (SADC Region)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Domestic	Domestic (VAT included)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Regional	Regional (SADC Region)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Domestic	Domestic (VAT included)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Regional	Regional (SADC Region)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Domestic	Domestic (VAT included)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Regional	Regional (SADC Region)	Unit Rate * Origin & Destination Pax
NA	KMP	Airport Charges	Passenger Service	Domestic	Domestic (VAT included)	Unit Rate * Origin & Destination Pax
NG	LOS	Airport Charges	Passenger Service	International	International Departures to ECOWAS	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
NG	LOS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	LOS	Airport Charges	Passenger Service	All Traffic	All other International Departures	Unit Rate * Total Departing Pax
NG	LOS	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
NG	LOS	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NA	LUD	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	LUD	Airport Charges	Passenger Service	Domestic	Domestic (VAT excluded)	Unit Rate * Origin & Destination Pax
NA	NDU	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	NDU	Airport Charges	Passenger Service	Domestic	Domestic (VAT excluded)	Unit Rate * Origin & Destination Pax
NE	NIM	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
NE	NIM	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NA	OND	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	OND	Airport Charges	Passenger Service	Domestic	Domestic (VAT excluded)	Unit Rate * Origin & Destination Pax
NG	PHC	Airport Charges	Passenger Service	International	International Departures to ECOWAS	Unit Rate * Total Departing Pax
NG	PHC	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NG	PHC	Airport Charges	Passenger Service	All Traffic	All other International Departures	Unit Rate * Total Departing Pax
NG	PHC	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
NG	PHC	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
NA	WDH	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	WDH	Airport Charges	Passenger Service	Domestic	Domestic (VAT excluded)	Unit Rate * Origin & Destination Pax
NA	WVB	Airport Charges	Passenger Service	International	International	Unit Rate * Origin & Destination Pax
NA	WVB	Airport Charges	Passenger Service	Domestic	Domestic (VAT excluded)	Unit Rate * Origin & Destination Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
ZA	CPT	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	DUR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	DUR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	DUR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
TG	LFW	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
TG	LFW	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
TG	LFW	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
TG	LFW	Airport Charges	Passenger Service	All Traffic	To African countries	Unit Rate * Total Pax
TG	LFW	Airport Charges	Passenger Service	All Traffic	To any other country	Unit Rate * Total Pax
TG	LFW	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Resident Pax
ZM	LUN	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZM	LUN	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CV	BVC	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	BVC	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	BVC	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	BVC	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	BVC	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	BVC	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
CV	MMO	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	MMO	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	MMO	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	MMO	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	MMO	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	MMO	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
CV	RAI	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CV	RAI	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	RAI	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	RAI	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	RAI	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	RAI	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
CV	SFL	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	SFL	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	SFL	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	SFL	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	SFL	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	SFL	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
CV	SID	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	SID	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	SID	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	SID	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	SID	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	SID	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
CV	SNE	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	SNE	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	SNE	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	SNE	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CV	SNE	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	SNE	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
CV	VXE	Airport Charges	Passenger Service	International	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	VXE	Airport Charges	Passenger Service	International	International - International Transfer	Unit Rate * Transfer Pax
CV	VXE	Airport Charges	Passenger Service	International	International - Domestic Transfer	Unit Rate * Transfer Pax
CV	VXE	Airport Charges	Passenger Service	Domestic	Origin & Destination	Unit Rate * Origin and Destination Pax
CV	VXE	Airport Charges	Passenger Service	Domestic	Domestic - Domestic Transfer	Unit Rate * Transfer Pax
CV	VXE	Airport Charges	Passenger Service	Domestic	Domestic - International Transfer	Unit Rate * Transfer Pax
ZA	CPT	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	CPT	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	DUR	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	DUR	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	DUR	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	JNB	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	Passenger Service	International	International	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	Passenger Service	Regional	Regional	Unit Rate * Total Departing Pax
ZA	PLZ	Airport Charges	Passenger Service	Domestic	Domestic	Unit Rate * Total Departing Pax
CD		ATC Charges	Overflight	All Traffic	Lower Airspace up to 245 km - Unit Rate	Unit Rate * (Distance CD_Km / 100)* POW((MTOW_Metric Ton/50) ,0.5)
CI		ATC Charges	Overflight	Domestic 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CI		ATC Charges	Overflight	Regional 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
CI		ATC Charges	Overflight	International 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
CI		ATC Charges	Overflight	Domestic 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
CI		ATC Charges	Overflight	Regional 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
CI		ATC Charges	Overflight	International 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
CI		ATC Charges	Overflight	Domestic 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
CI		ATC Charges	Overflight	Regional 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
CI		ATC Charges	Overflight	International 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
CI		ATC Charges	Overflight	Domestic Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CI		ATC Charges	Overflight	Regional Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CI		ATC Charges	Overflight	International Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CM		ATC Charges	Overflight	Domestic 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
CM		ATC Charges	Overflight	Regional 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
CM		ATC Charges	Overflight	International 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
CM		ATC Charges	Overflight	Domestic 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
CM		ATC Charges	Overflight	Regional 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
CM		ATC Charges	Overflight	International 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
CM		ATC Charges	Overflight	Domestic 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
CM		ATC Charges	Overflight	Regional 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
CM		ATC Charges	Overflight	International 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
CM		ATC Charges	Overflight	Domestic Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CM		ATC Charges	Overflight	Regional Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CM		ATC Charges	Overflight	International Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CV		ATC Charges	Overflight	0 - 700 km	50 - 139 tonnes	Unit Rate * 3
CV		ATC Charges	Overflight	700 - 1,000 km	50 - 139 tonnes	Unit Rate * 6
CV		ATC Charges	Overflight	Over 1,000 km	50 - 139 tonnes	Unit Rate * 12
ET		ATC Charges	Overflight	International	Up to 113 MTOW tonnes - Unit Rate based on distance	Unit Rate * ((Distance ET_Nautical Miles * 1.852) / 100) * POW((MTOW_Metric Ton / 50), .5)
GA		ATC Charges	Overflight	Domestic 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
GA		ATC Charges	Overflight	Regional 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
GA		ATC Charges	Overflight	International 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
GA		ATC Charges	Overflight	Domestic 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
GA		ATC Charges	Overflight	Regional 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
GA		ATC Charges	Overflight	International 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
GA		ATC Charges	Overflight	Domestic 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
GA		ATC Charges	Overflight	Regional 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
GA		ATC Charges	Overflight	International 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
GA		ATC Charges	Overflight	Domestic Over 3500 km	51 - 90 tonnes	Unit Rate * 28
GA		ATC Charges	Overflight	Regional Over 3500 km	51 - 90 tonnes	Unit Rate * 28
GA		ATC Charges	Overflight	International Over 3500 km	51 - 90 tonnes	Unit Rate * 28
GH		ATC Charges	Overflight	All Traffic	Over 20 tonnes - Unit Rate based on distance	MAX(MIN(600,Unit Rate * ROUNDUP(Distance GH_Km, 0)), 200)
GM		ATC Charges	Overflight	All Traffic	50 - 90 tonnes	Unit Rate * 1.4
KE		ATC Charges	Overflight	International	50 - 80 tonnes - Unit Rate based on distance	Unit Rate * MIN(500, MAX(Distance KE_Km, 300)) * 1.14
KE		ATC Charges	Overflight	Domestic	60 - 100 tonnes - Unit Rate based on distance	Unit Rate * MIN(500, MAX(Distance KE_Km, 300)) * 1.264
MZ		ATC Charges	Overflight	All Traffic - Fixed rate	43,000.01 - 100,000 kilograms	Fixed Charges
NA		ATC Charges	Overflight	All Traffic	Over 5,700 kilograms - Unit Rate based on distance	Unit Rate * POW(MTOW_Kilograms, 0.5) * Distance NA_Nautical Miles
NE		ATC Charges	Overflight	Domestic 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
NE		ATC Charges	Overflight	Regional 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
NE		ATC Charges	Overflight	International 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
NE		ATC Charges	Overflight	Domestic 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
NE		ATC Charges	Overflight	Regional 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
NE		ATC Charges	Overflight	International 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
NE		ATC Charges	Overflight	Domestic 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
NE		ATC Charges	Overflight	Regional 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
NE		ATC Charges	Overflight	International 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
NE		ATC Charges	Overflight	Domestic Over 3500 km	51 - 90 tonnes	Unit Rate * 28

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
NE		ATC Charges	Overflight	Regional Over 3500 km	51 - 90 tonnes	Unit Rate * 28
NE		ATC Charges	Overflight	International Over 3500 km	51 - 90 tonnes	Unit Rate * 28
RW		ATC Charges	Overflight	International 0 - 750 km	50 - 90 tonnes	Unit Rate * 1.4
RW		ATC Charges	Overflight	International 750 - 2000 km	50 - 90 tonnes	Unit Rate * 7
RW		ATC Charges	Overflight	International 2000 - 3500 km	50 - 90 tonnes	Unit Rate * 16.8
RW		ATC Charges	Overflight	International Over 3500 km	50 - 90 tonnes	Unit Rate * 28
RW		ATC Charges	Overflight	Regional 0 - 750 km	50 - 90 tonnes	Unit Rate * 1.4
RW		ATC Charges	Overflight	Regional 750 - 2000 km	50 - 90 tonnes	Unit Rate * 7
RW		ATC Charges	Overflight	Regional 2000 - 3500 km	50 - 90 tonnes	Unit Rate * 16.8
RW		ATC Charges	Overflight	Regional Over 3500 km	50 - 90 tonnes	Unit Rate * 28
RW		ATC Charges	Overflight	Domestic 0 - 750 km	50 - 90 tonnes	Unit Rate * 1.4
RW		ATC Charges	Overflight	Domestic 750 - 2000 km	50 - 90 tonnes	Unit Rate * 7
RW		ATC Charges	Overflight	Domestic 2000 - 3500 km	50 - 90 tonnes	Unit Rate * 16.8
RW		ATC Charges	Overflight	Domestic Over 3500 km	50 - 90 tonnes	Unit Rate * 28
SN		ATC Charges	Overflight	Domestic 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
SN		ATC Charges	Overflight	Regional 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
SN		ATC Charges	Overflight	International 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
SN		ATC Charges	Overflight	Domestic 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
SN		ATC Charges	Overflight	Regional 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
SN		ATC Charges	Overflight	International 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
SN		ATC Charges	Overflight	Domestic 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
SN		ATC Charges	Overflight	Regional 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
SN		ATC Charges	Overflight	International 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
SN		ATC Charges	Overflight	Domestic Over 3500 km	51 - 90 tonnes	Unit Rate * 28
SN		ATC Charges	Overflight	Regional Over 3500 km	51 - 90 tonnes	Unit Rate * 28
SN		ATC Charges	Overflight	International Over 3500 km	51 - 90 tonnes	Unit Rate * 28
TG		ATC Charges	Overflight	Domestic 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
TG		ATC Charges	Overflight	Regional 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4
TG		ATC Charges	Overflight	International 0 - 750 km	51 - 90 tonnes	Unit Rate * 1.4

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
TG		ATC Charges	Overflight	Domestic 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
TG		ATC Charges	Overflight	Regional 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
TG		ATC Charges	Overflight	International 750 - 2000 km	51 - 90 tonnes	Unit Rate * 7
TG		ATC Charges	Overflight	Domestic 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
TG		ATC Charges	Overflight	Regional 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
TG		ATC Charges	Overflight	International 2000 - 3500 km	51 - 90 tonnes	Unit Rate * 16.8
TG		ATC Charges	Overflight	Domestic Over 3500 km	51 - 90 tonnes	Unit Rate * 28
TG		ATC Charges	Overflight	Regional Over 3500 km	51 - 90 tonnes	Unit Rate * 28
TG		ATC Charges	Overflight	International Over 3500 km	51 - 90 tonnes	Unit Rate * 28
CD		ATC Charges	Overflight	All Traffic	Upper Airspace Over 246 km - Unit Rate	Unit Rate * (Distance CD_Km / 100)* POW((MTOW_Metric Ton/50) ,0.5)
MA		ATC Charges	Overflight	All Traffic	Overflight Charge - Unit Rate	Unit Rate * ((Distance MA_Km) / 100) * POW(MTOW_Metric Ton / 50, 0.5)
NG		ATC Charges	Overflight	All Traffic	Overflight Charge - Unit Rate	Unit Rate * (Distance NG_Km / 100) * POW(MTOW_Metric Ton / 50, 0.5)
ZA		ATC Charges	Overflight	Meteorological charge	Meteorological charge - Unit Rate	Unit Rate * POW(MTOW_Metric Ton / 50, .5) * (Distance ZA_Km / 100)
CI	ABJ	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
CF	BGF	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
CV	BVC	ATC Charges	Terminal Navigation	All Traffic	25.01 - 129 tonnes	Fixed Charges
CM	DLA	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
CM	GOU	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
CM	NSI	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
CV	RAI	ATC Charges	Terminal Navigation	All Traffic	25.01 - 129 tonnes	Fixed Charges
CV	SID	ATC Charges	Terminal Navigation	All Traffic	25.01 - 129 tonnes	Fixed Charges
GH	ACC	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
ET	ADD	ATC Charges	Terminal Navigation	International	40 - 100 tonnes	Unit Rate * MTOW_Metric Ton
ET	ADD	ATC Charges	Terminal Navigation	Domestic	40 - 100 tonnes	Unit Rate * MTOW_Metric Ton

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
GM	BJL	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
ET	BJR	ATC Charges	Terminal Navigation	International	40 - 100 tonnes	Unit Rate * MTOW_Metric Ton
ET	BJR	ATC Charges	Terminal Navigation	Domestic	40 - 100 tonnes	Unit Rate * MTOW_Metric Ton
GA	LBV	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
NG	ABV	ATC Charges	Terminal Navigation	International	International	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NG	ABV	ATC Charges	Terminal Navigation	Domestic	Domestic	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
MZ	APL	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
MZ	BEW	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
KE	EDL	ATC Charges	Terminal Navigation	All Traffic	40 - 80 tonnes	Fixed Charges
NG	ERS	ATC Charges	Terminal Navigation	International	International	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NG	ERS	ATC Charges	Terminal Navigation	Domestic	Domestic	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NG	KAN	ATC Charges	Terminal Navigation	International	International	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NG	KAN	ATC Charges	Terminal Navigation	Domestic	Domestic	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
KE	KIS	ATC Charges	Terminal Navigation	All Traffic	40 - 80 tonnes	Fixed Charges
NA	KMP	ATC Charges	Terminal Navigation	All Traffic	Terminal Control Area Charge (TMA)	Unit Rate * POW(MTOW_Kilograms, 0.8)
NG	LOS	ATC Charges	Terminal Navigation	International	International	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NG	LOS	ATC Charges	Terminal Navigation	Domestic	Domestic	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NA	LUD	ATC Charges	Terminal Navigation	All Traffic	Terminal Control Area Charge (TMA)	Unit Rate * POW(MTOW_Kilograms, 0.8)
KE	MBA	ATC Charges	Terminal Navigation	All Traffic	40 - 80 tonnes	Fixed Charges
MZ	MPM	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
KE	NBO	ATC Charges	Terminal Navigation	All Traffic	40 - 80 tonnes	Fixed Charges

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
NA	NDU	ATC Charges	Terminal Navigation	All Traffic	Terminal Control Area Charge (TMA)	Unit Rate * POW(MTOW_Kilograms, 0.8)
NE	NIM	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
NA	OND	ATC Charges	Terminal Navigation	All Traffic	Terminal Control Area Charge (TMA)	Unit Rate * POW(MTOW_Kilograms, 0.8)
NG	PHC	ATC Charges	Terminal Navigation	International	International	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NG	PHC	ATC Charges	Terminal Navigation	Domestic	Domestic	Unit Rate * POW(MTOW_Metric Ton / 50, 0.5)
NA	WDH	ATC Charges	Terminal Navigation	All Traffic	Terminal Control Area Charge (TMA)	Unit Rate * POW(MTOW_Kilograms, 0.8)
KE	WIL	ATC Charges	Terminal Navigation	All Traffic	40 - 80 tonnes	Fixed Charges
NA	WVB	ATC Charges	Terminal Navigation	All Traffic	Terminal Control Area Charge (TMA)	Unit Rate * POW(MTOW_Kilograms, 0.8)
SN	CSK	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
SN	DKR	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
SN	DSS	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
RW	KGL	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
RW	KGL	ATC Charges	Terminal Navigation	All Traffic	20.01 - 95 tonnes	Fixed Charges
TG	LFW	ATC Charges	Terminal Navigation	All Traffic	Not Charged	
ZM	LUN	ATC Charges	Terminal Navigation	International	International	Unit Rate * (Distance_Km / 100) * POW(MTOW_Metric Ton / 50, 0.5)
ZM	LUN	ATC Charges	Terminal Navigation	Domestic day	06:00 - 18:00	MAX(Unit Rate * ROUNDUP(MTOW_Metric Ton, 0), 10) * 0.15
ZM	LUN	ATC Charges	Terminal Navigation	Domestic night	18:01 - 05:59	MAX(Unit Rate * ROUNDUP(MTOW_Metric Ton, 0), 10) * 0.15
CM	DLA	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_Liter
CM	NSI	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_Liter
KE	MBA	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_US gallon
SN	DSS	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_US gallon
ZA	JNB	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_Cubic meter
TG	LFW	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_Liter

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
ZA	CPT	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_Liter
CI	ABJ	Fuel Charges	Throughput	All Traffic	Throughput Fee	Unit Rate * Fuel_Liter
CI	ABJ	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
CF	BGF	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
CG	BZV	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
CM	DLA	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
CM	GOU	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
CM	NSI	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
GH	ACC	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
ET	ADD	Fuel Charges	Airport Fuel Fee		Inland Transport Fee	Unit Rate * Fuel_US gallon
GM	BJL	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_US gallon
CV	BVC	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
CV	RAI	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
CV	SID	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
MA	AGA	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * (Fuel_Liter / 100)
MA	AHU	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
MA	CMN	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
KE	EDL	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
MA	FEZ	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
MZ	MPM	Fuel Charges	Airport Fuel Fee		Refuelling Service Charge	Unit Rate * (Fuel_Liter / 100)
KE	NBO	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
MA	RAK	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * (Fuel_Liter / 100)

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
MA	TNG	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Cubic meter
NG	ABV	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
SN	CSK	Fuel Charges	Airport Fuel Fee		Not Charged	
SN	DKR	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
SN	DSS	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
NG	ERS	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
NG	KAN	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
NG	LOS	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
NE	NIM	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
NG	PHC	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
ZA	JNB	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate* cubic meter
TG	LFW	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
ZM	LUN	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_US gallon
GH	ACC	Fuel Charges	Airport Fuel Fee		Airport Fuel Fee	Unit Rate * Fuel_Liter
MZ	APL	Fuel Charges	Airport Fuel Fee		5 - 40 tonnes	Fixed Charges
MZ	APL	Fuel Charges	Airport Fuel Fee		40 - 190 tonnes	Fixed Charges
MZ	APL	Fuel Charges	Airport Fuel Fee		Over 190 tonnes	Fixed Charges
MZ	BEW	Fuel Charges	Airport Fuel Fee		5 - 40 tonnes	Fixed Charges
MZ	BEW	Fuel Charges	Airport Fuel Fee		40 - 190 tonnes	Fixed Charges
MZ	BEW	Fuel Charges	Airport Fuel Fee		Over 190 tonnes	Fixed Charges
MZ	MPM	Fuel Charges	Airport Fuel Fee		5 - 40 tonnes	Fixed Charges

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
MZ	MPM	Fuel Charges	Airport Fuel Fee		40 - 190 tonnes	Fixed Charges
MZ	MPM	Fuel Charges	Airport Fuel Fee		Over 190 tonnes	Fixed Charges
TZ	DAR	Fuel Charges	Concession		Concession Fee	Unit Rate * Fuel_US gallon
BW	GBE	Fuel Charges	Concession		Concession Fee	Unit Rate * Fuel_Liter
EG	HBE	Fuel Charges	Concession		Concession Fee	Fixed Charges
ZW	HRE	Fuel Charges	Concession		Concession Fee	Unit Rate * Fuel_US gallon
TZ	JRO	Fuel Charges	Concession		Concession Fee	Unit Rate * Fuel_US gallon
ZM	LUN	Fuel Charges	Concession		Concession Fee	Unit Rate * Fuel_US gallon
KE	MBA	Fuel Charges	Concession		Concession Fee	Unit Rate * Fuel_Cubic meter
GA	LBV	Govt. Taxation	Air Passenger	Domestic	Domestic	Unit Rate * (Total Arriving Pax + Total Departing Pax)
GA	LBV	Govt. Taxation	Air Passenger	Regional	First Class	Unit Rate * (Total Arriving First Class Pax + Total Departing First Class Pax)
GA	LBV	Govt. Taxation	Air Passenger	Regional	Business Class	Unit Rate * (Total Arriving Business Pax + Total Departing Business Pax)
GA	LBV	Govt. Taxation	Air Passenger	Regional	Economy Class	Unit Rate * (Total Arriving Economy Pax + Total Departing Economy Pax)
GA	LBV	Govt. Taxation	Air Passenger	International	First Class	Unit Rate * (Total Arriving First Class Pax + Total Departing First Class Pax)
GA	LBV	Govt. Taxation	Air Passenger	International	Business Class	Unit Rate * (Total Arriving Business Pax + Total Departing Business Pax)
GA	LBV	Govt. Taxation	Air Passenger	International	Economy Class	Unit Rate * (Total Arriving Economy Pax + Total Departing Economy Pax)
NE	NIM	Govt. Taxation	Air Passenger	International	International Departures	Unit Rate * Total Departing Pax
ZA	CPT	Govt. Taxation	Air Passenger	International	International	Unit Rate * Total Departing Pax
ZA	CPT	Govt. Taxation	Air Passenger	Regional	Regional	Unit Rate * Total Departing Pax
ZA	DUR	Govt. Taxation	Air Passenger	International	International	Unit Rate * Total Departing Pax
ZA	DUR	Govt. Taxation	Air Passenger	Regional	Regional	Unit Rate * Total Departing Pax
ZA	JNB	Govt. Taxation	Air Passenger	International	International	Unit Rate * Total Departing Pax
ZA	JNB	Govt. Taxation	Air Passenger	Regional	Regional	Unit Rate * Total Departing Pax
ZA	PLZ	Govt. Taxation	Air Passenger	International	International	Unit Rate * Total Departing Pax
ZA	PLZ	Govt. Taxation	Air Passenger	Regional	Regional	Unit Rate * Total Departing Pax
CI	ABJ	Govt. Taxation	Aviation / Airport Tax	International	International	Unit Rate * Total Departing Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
CI	ABJ	Govt. Taxation	Aviation / Airport Tax	Domestic	Domestic	Unit Rate * Total Departing Pax
ET	ADD	Govt. Taxation	Aviation / Airport Tax	Domestic	Domestic	Unit Rate * Total Departing Pax
ET	BJR	Govt. Taxation	Aviation / Airport Tax	Domestic	Domestic	Unit Rate * Total Departing Pax
YT	DZA	Govt. Taxation	Aviation / Airport Tax	Origin & Destination	Origin & Destination	Unit Rate * Origin & Destination Pax
YT	DZA	Govt. Taxation	Aviation / Airport Tax	Transfer	Transfer	Unit Rate * Transfer Pax
RE	RUN	Govt. Taxation	Aviation / Airport Tax	Origin & Destination	Origin & Destination	Unit Rate * Origin & Destination Pax
RE	RUN	Govt. Taxation	Aviation / Airport Tax	Transfer	Transfer	Unit Rate * Transfer Pax
CF	BGF	Govt. Taxation	Security Tax	International	International Departures	Unit Rate * Total Departing Pax
CF	BGF	Govt. Taxation	Security Tax	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
GQ	BSG	Govt. Taxation	Security Tax	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
GQ	BSG	Govt. Taxation	Security Tax	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
CD	FIH	Govt. Taxation	Security Tax	International	International Departures	Unit Rate * Total Departing Pax
CD	FIH	Govt. Taxation	Security Tax	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
SD	KRT	Govt. Taxation	Security Tax	International	International Arrivals & Departures	Unit Rate * (Total Arriving Pax + Total Departing Pax)
GQ	SSG	Govt. Taxation	Security Tax	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
GQ	SSG	Govt. Taxation	Security Tax	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
ST	TMS	Govt. Taxation	Security Tax	International	Adults	Unit Rate * (Total Adult Departing Pax + Total Adult Arriving Pax)
ST	TMS	Govt. Taxation	Security Tax	International	Children	Unit Rate * (Total Child Departing Pax + Total Child Arriving Pax)
ST	TMS	Govt. Taxation	Security Tax	Domestic	Adults	Unit Rate * (Total Adult Departing Pax + Total Adult Arriving Pax)
ST	TMS	Govt. Taxation	Security Tax	Domestic	Children	Unit Rate * (Total Child Departing Pax + Total Child Arriving Pax)
MA	AGA	Govt. Taxation	Tourism Tax	International	First Class	Unit Rate * Total First Class Pax
MA	AGA	Govt. Taxation	Tourism Tax	International	Economy Class	Unit Rate * Total Economy Pax
MA	AGA	Govt. Taxation	Tourism Tax	International	Business Class	Unit Rate * Total Business Pax
GM	BJL	Govt. Taxation	Tourism Tax	International	International Arrivals	Unit Rate * Total Arriving Pax
ML	BKO	Govt. Taxation	Tourism Tax	All traffic	Tourism Tax	Unit Rate * Origin / Destination Pax
MA	CMN	Govt. Taxation	Tourism Tax	International	First Class	Unit Rate * Total First Class Pax

COUNTRY CODE	AIRPORT CODE	CHARGE TYPE	CHARGE CATEGORY	TYPE	SCHEME OF CHARGES	FORMULA
MA	CMN	Govt. Taxation	Tourism Tax	International	Economy Class	Unit Rate * Total Economy Pax
MA	CMN	Govt. Taxation	Tourism Tax	International	Business Class	Unit Rate * Total Business Pax
BJ	COO	Govt. Taxation	Tourism Tax	All traffic	First/Business	Unit Rate * (Total First Class Pax + Total Business Pax)
BJ	COO	Govt. Taxation	Tourism Tax	All traffic	Economy	Unit Rate * Total Economy Pax
TN	DJE	Govt. Taxation	Tourism Tax	International	Economy	Unit Rate * Total Economy Pax
TN	DJE	Govt. Taxation	Tourism Tax	International	First/Business	Unit Rate * (Total First Class Pax + Total Business Pax)
MA	FEZ	Govt. Taxation	Tourism Tax	International	First Class	Unit Rate * Total First Class Pax
MA	FEZ	Govt. Taxation	Tourism Tax	International	Economy Class	Unit Rate * Total Economy Pax
MA	FEZ	Govt. Taxation	Tourism Tax	International	Business Class	Unit Rate * Total Business Pax
TN	MIR	Govt. Taxation	Tourism Tax	International	Economy	Unit Rate * Total Economy Pax
TN	MIR	Govt. Taxation	Tourism Tax	International	First/Business	Unit Rate * (Total First Class Pax + Total Business Pax)
TN	NBE	Govt. Taxation	Tourism Tax	International	Economy	Unit Rate * Total Economy Pax
TN	NBE	Govt. Taxation	Tourism Tax	International	First/Business	Unit Rate * (Total First Class Pax + Total Business Pax)
BF	OUA	Govt. Taxation	Tourism Tax	International & Regional	International & Regional Departures	Unit Rate * Total Departing Pax
BF	OUA	Govt. Taxation	Tourism Tax	Domestic	Domestic Departures	Unit Rate * Total Departing Pax
MA	RAK	Govt. Taxation	Tourism Tax	International	First Class	Unit Rate * Total First Class Pax
MA	RAK	Govt. Taxation	Tourism Tax	International	Economy Class	Unit Rate * Total Economy Pax
MA	RAK	Govt. Taxation	Tourism Tax	International	Business Class	Unit Rate * Total Business Pax
MA	TNG	Govt. Taxation	Tourism Tax	International	First Class	Unit Rate * Total First Class Pax
MA	TNG	Govt. Taxation	Tourism Tax	International	Economy Class	Unit Rate * Total Economy Pax
MA	TNG	Govt. Taxation	Tourism Tax	International	Business Class	Unit Rate * Total Business Pax
TN	TUN	Govt. Taxation	Tourism Tax	International	Economy	Unit Rate * Total Economy Pax
TN	TUN	Govt. Taxation	Tourism Tax	International	First/Business	Unit Rate * (Total First Class Pax + Total Business Pax)

APPENDIX 4

SAATM – PIP States list

COUNTRY	COUNTRY CODE
CABO VERDE	CV
CAMEROON	CM
CENTRAL AFRICAN REPUBLIC	CF
CONGO REPUBLIC	CG
CÔTE D'IVOIRE	CI
ETHIOPIA	ET
GABON	GA
GAMBIA	GM
GHANA	GH
KENYA	KE
MOROCCO	MA
MOZAMBIQUE	MZ
NAMIBIA	NA
NIGER	NE
NIGERIA	NG
RWANDA	RW
SENEGAL	SN
SOUTH AFRICA	ZA
TOGO	TG
ZAMBIA	ZM