Improving Competitiveness of Airfreight in Kenya

Table of Contents

List of Figures 2

List of Tables 2

Acknowledgements 3

List of Abbreviations 3

Executive Summary 1

1 Introduction 4

1.1 Overview 4

1.2 Objectives of the Study 6

2 Methodology 6

3 Airfreight Industry Outlook in Kenya 7

3.1 Review: Institutional and Regulatory Issues 10

3.2 Role of Air Cargo in Kenya's Economy 11

3.3 Drivers of Air Cargo Traffic in Kenya 13

4 Findings of the Study 14

4.1 Challenges Facing the Air Freight Sector in Kenya 14

4.1.1 Challenges Faced by Carriers/Airlines 14

4.1.2 Key Challenges - Regulatory/Processes/Procedures/Systems 16

4.1.3 Key Challenges - Others 16

5 Recommendations 18

5.1 Stakeholders' Views 24

5.1.1 Way Forward 24

References 24

Appendix 25

List of Figures

Figure 1. Import and Export Airfreight Throughput in JKIA :2014 - 2016............**Error! Bookmark not defined.**

Figure 2. Kenya's GDP Growth Rate Between 2010 and 2017 ....**Error! Bookmark not defined.**

Figure 3. Trends in GDP Growth Rates & Volume of Air Cargo Growth – JKIA (2014-2016)....... **Error! Bookmark not defined.**

Figure 4. Ease of Market Entry and Fulfilment of Regulatory Requirements....**Error! Bookmark not defined.**

List of Tables

Table 1. Current Status in Aviation Sector in Kenya ....**Error! Bookmark not defined.**

Table 2. Air Cargo Combined Throughput at JKIA Transit Sheds ....**Error! Bookmark not defined.**

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List of Abbreviations

ACI	Air Connectivity Index
AFCAC	Civil Aviation Commission
AFS	Africa Flight Services
AFTK	Available Freight Tonne Kilometre
AOA	Analysis of Alternatives
ATFI	Air Trade Facilitation Index
AU	African Union
AUC	African Union Commission
BPO	Business Processes Off-Shoring
CFS	Container Freight Station
COC	Certificate of Conformity
EAC	East African Community
EDI	Electronic Data Interchange
EFFI	eFreight Friendliness Index
EPA	Economic Partnership Agreement
EU	European Union
FAA	Federal Aviation Administration
FDI	Foreign Direct Investment
FTK	Freight Tonne Kilometres
GDP	Gross Domestic Product
GOK	Government of Kenya
GVC	Global Value Chain
IATA	International Air Transport Association
ICD	Inland Container Deport
JKIA	Jomo Kenyatta International Airport
KAHL	Kenya Airfreight Handling Company
KQ	Kenya Airways
LDC	Least Developed Country
LPI	Logistics Performance Index
LPS	Logistics Performance Survey
PVoC	Pre-Export Verification of Conformity
RA3	Regulated Agent
SEZ	Special Economic Zone
TCD	Trade Competitiveness Diagnostics
WCO	World Customs Organization
WEF	World Economic Forum
WTO	World Trade Organization

Executive Summary

The air cargo industry presents a wide variety of service providers coming together to move goods both domestically and internationally with a single minded purpose of faster and efficient delivery. These business entities in the air cargo logistics industry in turn interact with a number of cross-border regulatory agencies-the principal among them is the customs establishment. JKIA has a capacity of 5,000 tonnes a week but only circa 3,000 goes through every week. Data from the Kenya Airports Authority indicate that the volume of cargo handled at JKIA between March 2016 and March 2017 declined by 2%, which was an equivalent of 400 tonnes.

Speed, reliability, and security of air cargo are among the key drivers of the efficiency and sustainability of global value chains (GVCs) that are supported by airfreight logistics.

This report uses a range of data sources to examine the competitiveness of the Kenyan airfreight landscape. Air cargo is a critical enabler supporting integration of economies into fast-paced global value chains. Economies with more competitive airfreight logistics structures, processes and functions, combined with good quality customs services and smart borders are better integrated into global value chains. Key questions have arisen during this study – will there be an emergence of rail-to-air multimodal transportation when the SGR finally starts is operations in Naivasha? The SGR through the Ministry of Transport has halved the cost of transportation of 20ft containers if transported by rail from Mombasa to Nairobi (from $1000 by road haulage to $500 by rail). How can JKIA tap into this development to act as a distribution hub for multimodal transit goods and transhipments? The Syokimau-Mlolongo logistics cluster is only 10 minutes away from Kenya's largest and busiest international airport.

In early 2017, the Kenyan Treasury phased out punitive environmental audit and building levies to the construction regulators. This reduction in cost has seen increased investments in the construction sector and enhanced competitiveness in the real estate business. In the airfreight front, regulators like KEPHIS are poised to review their inspection fees upwards while County governments seeking a piece of the pie to grow revenue also charge various levies and licenses to industries that support agro-based exports by airfreight. Transportation of freight to the airport by horticultural producers still account for nearly 10% of total logistics costs. How important then is the airfreight sector to the Kenyan economy if the ease and cost of doing business is on the rise yet this is the fastest link to international markets for Kenya's produce?

This study has taken a comparative approach in looking at air cargo logistics performance and measurement as key indices in measuring the competitiveness of the airfreight sub-sector in Kenya.

Key Findings

This report has a number of findings that will be of interest to the industry and policymakers alike. Legislative and practical industry priorities need to be emphasized in the Kenyan scene as is being done by more successful economies around the globe, in so far as logistics is concerned generally but particularly in the airfreight sector.

Most airlines currently experience inconsistent and reduced load-factors due to over-capacity in the market. An average of 40% in excess capacity was reported by various airlines, especially due to seasonality of Kenyan fresh produce exports. Lack of diversification in both export products and markets has seen airlines experience low return loads and are thus forced to increase freight rates through surcharges like fuel and security, to cushion against increased operational costs.

Customs has the most important role in the use of airports for import cargo and more particularly for transhipment cargo. Despite the high value and time sensitivity of air cargo, the time required for clearance of import cargo still needs to be reduced as well as simplifying the procedures involved in cargo transhipments through airports. Most major airports in developed countries can clear cargo in a few hours to one day. This is possible because of the level of computerization of airfreight documentation, which allows submission of the IGM (Inward General Manifest) at the time of departure from the previous airport.

Exporters of perishables (flowers & fresh produce) cited the existence of cartels in the demand-side of their supply chains. This has made entry into the export business unattractive. The demand for Kenya’s fresh produce exports exists but the supply is curtailed by numerous quality and compliance restrictions. Small scale exporters lamented that there is always a tendency of being crowded-out by larger exporters who have larger economies of scale. These among other factors are barriers to entry into the fresh produce export market.

Ground-handling agents are still charging forwarders/shippers for unitization/cargo build-up and still demand that the shippers/forwarders should provide their own staffing for the same. This increases the cost of doing business. There are claims that heavy and bulky imports ‘must’ accrue some storage costs to the transit-sheds. The dwell-time is allegedly controlled by such entities and importers face increased demurrage costs that are beyond their budgets. Most of such importers have defected to sea freight.

Interline agreements between airlines is still much unexploited. If this is used wisely, it will create additional outlets for carriers and leverage the traditional point-to-point business lanes. The cargo throughput efficiency for JKIA thus remains low.

The burden of compliance in certain regulatory issues e.g. payments to certain government agencies and certifications have also been cited as cumbersome since they reduce the speed of processing transactions for export shipments.

Various Challenges

I. Export Shipment Examination: Requirement of 100% export shipment examination leads to soiling of products and often causes delays of particularly perishables that come directly to transit sheds.
II. Duplication of Documentation: Generation of export documentation copies is a cumbersome and wasteful exercise as much as not being an eco-friendly process. 40% of exporters felt that these documents have outlived their relevance for their physical existence and should be replaced with electronic mode.
III. Customs Processes Simplification - via Electronic Data Interface (EDI): Physical papers are still being used even after implementation of EDI in the processing of import & export cargo. This will help in reducing the dwell time of import/export cargo by at least 10-20%.

IV. Transhipment Process Simplification: If transhipment is allowed to be an electronically permissible pre-arrival process and not necessarily a post-landing procedure, delays will be drastically reduced. International airlines have higher preference to land in gateways where there is direct connectivity to the required airports. Transhipment restrictions severely limit the development of secondary markets thereby limiting the development of JKIA to be an attractive regional air cargo hub.

V. Automation / IT Adoption: An overall industry overview, establishing an integrated approach, and adopting a common platform is essentially needed. All relevant government agencies (aforementioned) are yet to be interconnected. This means that data cannot be easily shared owing to manual processes and paper documentation.

Policy Issues and Priorities

There is need to develop the policy framework environment in the airfreight sector in Kenya by incorporating important international instruments into domestic law. Beyond the policy framework, there is also work to do on the implementation side. Trade facilitation initiative emphasizes cutting red tape and unnecessary formalities to speed up cross-border processing and make it more reliable. Doing so allows air cargo to capitalize on its key advantage of speed. Key interventions that are needed-specific to air cargo are:

(i) Facilitation of electronic processing
(ii) Full implementation of "single window" processing and simplification of transhipment procedures
(iii) Coordinated border agency procedures to reduce duplicative controls
(iv) Implementation of risk management controls at airports to combat illicit activities and facilitate compliant traders
(v) Put in place processes to approve release of shipments in advance of their actual arrival
(vi) Implementation of Airport Free Trade Area at the airport to increase the air haul capacity through increased input of import volumes

The findings in this report can serve as evidence in support of policy deliberations on improving the competitiveness of the airfreight environment in Kenya and its integration into global value chains. It highlights that well-developed air cargo connections combined with good quality customs services and smart borders, are better at integrating and enhancing the airfreight sub-sector performance. Recommendations and policy proposals are thus made for consideration by the Shippers Council for Eastern Africa as the basis for reform agenda.

1 Introduction

Air cargo logistics play a vital role in the economic development of a nation. In Kenya, 18% of the total value of exports destined for international markets is transported by air, mainly, high-value fresh vegetables (e.g. green beans), cut flowers and freshwater fish from Lake Victoria (Tilapia and Nile Perch) (Source: KNBS, 2015). In addition, the import trade comprising mainly of electronic goods, medical and pharmaceutical goods, dairy products, luxury items and many other items that require speedy deliveries, has boosted air cargo. It is thus apparent that air freight plays an important and growing role in Kenya's export and import business.

Kenya is strategically placed to serve as the hub of air traffic for Eastern and Central Africa. However, the sub-sector has witnessed a myriad of challenges ranging from increasing fuel prices, security threats, changing inventory strategies, model shifting and disconnected government agencies among others. The country has in the recent past put measures in place to improve the efficiency and productivity in service delivery at airports through various government agencies. However, critical challenges still exist. Cargo dwell times at the airport are still between 2 and 3 days. Lengthy customs documentation processes also delay cargo clearance while the existence of numerous regulatory agencies with overlapping mandates continue to challenge the ease of processing air freight and introduces unnecessary bureaucracy, thereby increasing delays and more costs. This encumbrance negatively impacts on shippers' competitiveness in the global marketplace and growth of the sector. Currently, the cost of doing business for fresh produce exporters at Jomo Kenyatta International Airport (JKIA) accounts for close to 55% of the total export value of all Kenyan exports (Source: SCEA LPI survey, 2013).

It is against this background, that Shippers' Council of Eastern Africa (SCEA) engaged Leverage Consulting to undertake a study of Kenya's airfreight regulatory frameworks and operational procedures to ascertain their appropriateness identify inefficiencies, costs and competitiveness.

The findings in this report can serve as evidence in support of policy deliberations on improving the competitiveness of the airfreight sub-sector and overall trade facilitation at border frontiers in Kenya.

1.1 Overview

The strong relationship between growth in international trade and logistics infrastructure is widely acknowledged (Kasarda and Green, 2005). Growth in trade induces the requirement for supporting existing infrastructures while the availability of such infrastructures at competitive rates promotes trade and improves global competitiveness of the country. The availability of infrastructure is also a key determinant of foreign direct investment (FDI) inflows. In developing countries like Kenya, an efficient logistics infrastructure can reduce costs of transportation which in turn can contribute directly to global competitiveness of the country. An efficient airfreight logistics industry acts as an economic catalyst by opening up new market opportunities, moving products and services with speed and efficiency.

The demand for air cargo transportation has increased significantly over the last few years, because product life-cycles have shortened and demand for rapid delivery has increased.

Changing business models such as just-in-time manufacturing and global out-sourcing models have contributed to the rapid growth of air cargo logistics business. In such a changing business environment, where speed-to-market is a competitive imperative, movement of inventory is no longer viewed as a compartmentalized process. Rather, the sourcing of inputs, parts and components and the delivery of final product are all viewed as a continuous value-adding chain. Efficient supply chain management therefore offers significant benefits including lower inventory and intermediary costs, simplicity in order placement, delivery and management of suppliers, and customers. These benefits directly contribute to making businesses more competitive.

Evidence from the 2014 and 2016 Logistics Performance Index (LPI) indicates that, for countries at the same level of per capita income, those with the best logistics performance experience an additional growth of 1% in Gross Domestic Product (GDP) and 2% in trade. These findings are especially relevant today, as developing countries need to invest in better trade logistics to emerge in a stronger and more competitive position. Kenya's LPI rank in 2016 was placed at 42, up from 74 in LPI 2014.This was second to South Africa within Africa – which ranked 27 – and the top East African country in the LPI index. The potential for Kenya to perform even better in global logistics competitiveness thus exists, although the LPI ranking does not wholesomely measure other imperatives.

The fortunes of the transport and logistics industry are closely connected to the economic cycle. When economic activity is buoyant, demand for transport and logistics services is equally strong. Consumer and business demand for goods and services inevitably translates into higher demand for transport and logistics services[1].

Kenya's economy is on a trajectory of growth. Forecasts suggest that the growth prospects are likely to continue for more than two decades[2]. That means, requirements for augmentation of infrastructure facilities in the logistics space to cater to the growing needs of the trade and industry will be immense. The opportunity cost of not meeting such requirements in a timely manner is very high.

Despite air freight logistics costs accounting for 55% of the value of exports of fresh produce from Kenya, air transport remains the key mode of transport for high-value imports and perishable export produce including horticulture and meat products. Kenya has a relatively well developed air transport industry. However, businesses that rely on air freight to move their goods face challenges in their daily operations. Challenges such as freight rates (that are highly sensitive to fuel prices), lack of sufficient airport infrastructure and dwell times that are not in line with speedy deliveries are negatively impacting on the competitiveness and growth of the sector.

While improving efficiency is a continuous process, international benchmarks are useful in assessing the current state of affairs. Based on best practices, what needs to be done in policy issues within the air cargo sector – by whom and how – could be identified to prepare a road map for implementation. This is the primary focus of this report which is a culmination of discussions

[1] Q Finance Transport and Logistics

[2] Kenya Vision 2030

with a large number of key informants and feedback received from trade/industry and other stakeholders.

1.2 Objectives of the Study

The objective of this study is to analyse the airfreight logistics structure in Kenya by identifying bottlenecks and areas of inefficiency that can be improved through strategic interventions, regulatory reviews, and policy interventions that will increase the competitiveness of international traders who use airfreight as their main mode of transport.

This report delivers three outputs as follows:

- Identification of regulatory oversight and institution building to ensure that interests of airport users (for airfreight) are upheld and defended against potential exploitation from private service providers operating in non-competitive environments. This is an essential reform agenda
- Identification of operational areas that impede the seamless flow of goods and services along the airfreight logistics chains in Kenya i.e. structures, processes and functions
- The role that air cargo plays in economic development. This is presented by basic empirical relationships between air cargo and both trade and gross domestic product. Factors than can enhance air cargo's positive impact: improving customs quality and reducing burdens of compliance are also discussed as platforms for reform agenda.

2 Methodology

This involved desk reviews of existing records to provide in-depth understanding of the existing airfreight regulatory frameworks and operational procedures with a focus on planning and control of material flows and related information. This was particularly useful in describing the study parameters of interest, identifying different strengths and weaknesses of the existing airfreight regulatory procedures. Information from the desk reviews were used to form a basis of future generation of data and to identify knowledge gaps. We bore in mind that airfreight logistics and commercial supply chains are sophisticated operations based on forecasted demands, inventory controls and a number of models that are used to optimise a dynamic and fast-moving system.

An inception meeting preceded any activities for both the consultant and the SCEA to be clear on the deliverables from the outset. The methodology applied involved an in-depth approach and development of tools of analysis that included but were not limited to the following:

A standard questionnaire was administered to the above stakeholders with specific focus on JKIA as statistics show that up to 90% of all air cargo traffic is handled at this airport.
A Validation Workshop which drew participants from key informants was convened after the study to validate the findings of the report and in fulfilment of the Terms of Reference.

3 Airfreight Industry Outlook in Kenya

In Kenya, established freight forwarders either supplement or wholly replace the carriers own in-country sales efforts, while also performing customs agency and other critical functions on behalf of shippers. Forwarders are critical to carriers in markets in which foreign carriers are less inclined to maintain their own sales forces. Speeds of service, door-to-door delivery, tracking systems, proof of delivery, security and reliability and access to global connectivity to their customers, are the salient features of the air express industry.

The air cargo industry has three primary types of carriers: combination carriers (passenger airlines that use a portion of their "belly-hold" capacity to carry cargo and may also operate separate air cargo fleets), conventional all-cargo carriers operating both scheduled and charter services, and integrated (express) carriers operating their own fleet of aircraft and delivery vehicles providing overnight, door-to-door service.

According to Kenya Airports Authority, in 2015 exports accounted for 86% of all cargo throughput with imports accounting for the remaining 14%. In the same year, perishables accounted for 85% of total exports and flowers in particular accounted for 41%. Europe still remains the destination of choice for Kenyan exports with 68% of total exports and the Middle East at 14%. Kenya and China are also emerging as a major trade partners as cargo movement continues to grow.

Air freight rates range from $1.50 to $4.50 per kilogramme, while the value of air cargo typically exceeds $4 per kilogramme. "Agricultural producers have goods to export, but are simply unable to economically do so due to the cost and or lack of air cargo options," says another report on costs and benefit of open skies in East Africa Community done by consulting firm InterVISTAS. Fresh produce exporters, who are the main users of air transport at JKIA cargo centre, say the cost of doing business accounts for close to 55 per cent of the total export value. This corroborates a fact recently established during the Fruits & Vegetables Expo held in Nairobi where the CEO of Kenya Association of Small & Medium scale Fruits and Vegetables Exporters (KEFE)) reiterated the fact that indeed demand exists for Kenyan fresh produce in foreign markets but the aggregate supply could still be increased. According to a report by the World Bank, the demand for air freight is limited by cost, typically priced about 5 times that of road transport and 15 times that of sea transport.

The global air cargo industry relies upon a network of facilities and services. In the recent past, JKIA has put a focus on developing cargo activities through infrastructural improvements which have in turn attracted all-cargo freighters and integrators. This is evidenced by the growth of air cargo ground handling facilities from a singular entity (i.e. Kenya Airfreight Handling Limited) to five modern facilities with direct access to the airside in less than two decades. These include Transglobal Cargo Centre**,** Swissport Cargo Complex, Siginon Freight Centre and Kenya Airways Cargo Centre. This growth has seen the expansion of the cargo apron at JKIA which can currently accommodate 8 wide-bodied aircraft simultaneously. The infrastructural improvements have attracted all freighter services from various airlines including; Lufthansa, Saudi, Etihad, Emirates, Turkish, Singapore, Martinair, Air France/KLM, Astral Aviation among various adhoc all-cargo charter flights.

Below is the current status of aviation in Kenya as revealed by the KCAA.

Table 1: Current status of aviation sector in Kenya

INDICATORS	STATUS
Approval of direct flight from Kenya to USA	IASA CAT1 Attained
Major International Airports in 2017	4
Average Number of Flights Handled Per Day	875
International Scheduled Flights per Day	250
Destinations Flown To By Kenyan Carriers	70 Airports In 50 Countries
Projected Growth of Aviation Industry	5% per annum up to 2030
Aviation Security Compliance (USAP-2015)	89%
Aviation Safety Compliance (ICVM-2013)	78.21% from 66.1% (2008)

Source: KCAA,2017 (IASA = International Aviation Safety Assessment, USAP = Universal Security Audit Programme, ICVM= ICAO Coordinated Validation Mission)

Jomo Kenyatta International Airport

JKIA is the biggest airport in East and Central Africa, and it is the focal point for major aviation activity in the region. The airport has five cargo facilities with a capacity to handle over 200,000 tonnes of cargo annually, and an animal holding facility which occupies 4,318.95ft. Kenya Airports Authority has at this airport an exclusive earmarked freight area which has fourteen (14) Pack-Houses with pre-cooling and processing facilities for cut flowers, fruits and other fresh produce. These are strategically located within the airport next to the cargo terminals.

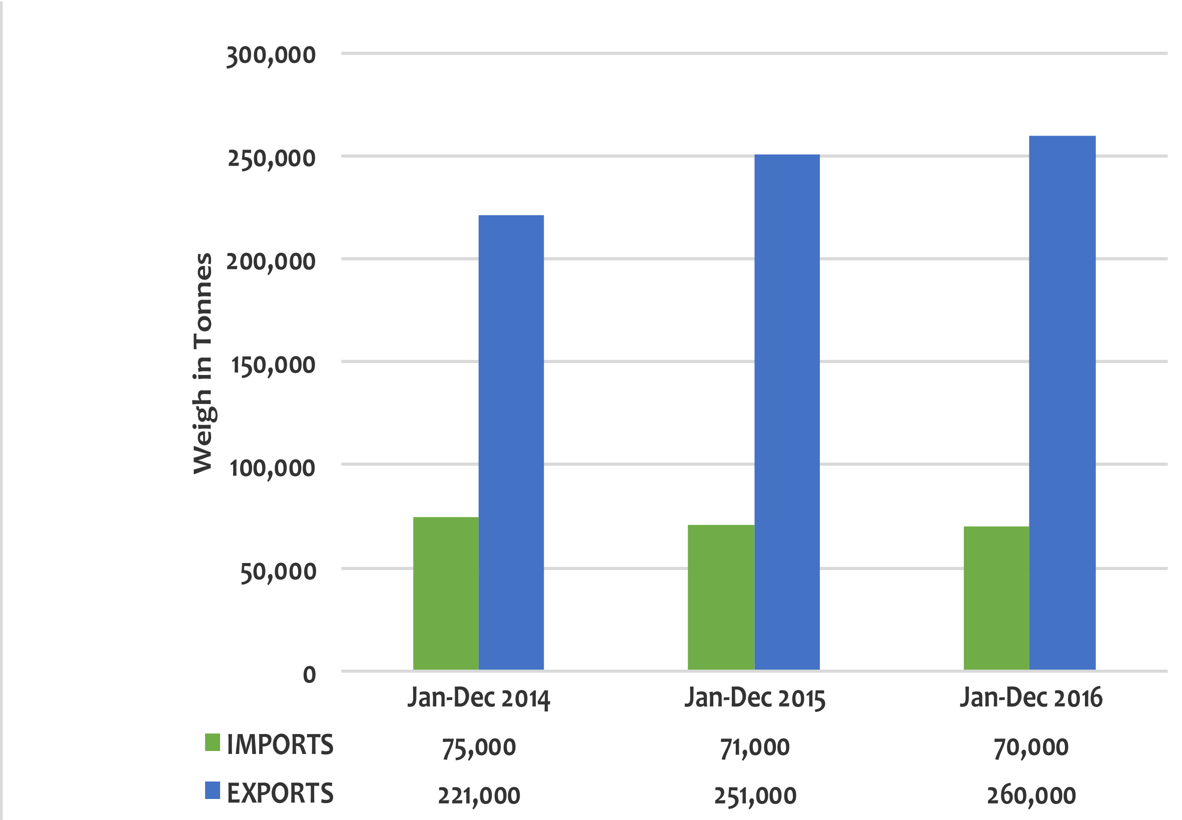
The cargo transit shed facilities are; Kenya Airfreight Handling Limited, Transglobal Cargo Centre**,** Swissport Cargo Complex, Siginon Freight Centre and Kenya Airways Cargo Centre.

Table 2: Air cargo throughput at JKIA 2016,(in Tonnes)

KAHL + KQ Cargo Centre	AFS /Transglobal Cargo Centre	Swissport Cargo Complex	Siginon Freight Centre
Import + Export	**Import + Export**	**Import + Export**	**Import + Export**
107,000	**100,000**	**73,000**	**50,000**

Source: Kenya Airports Authority- 2017

Figure 1: Import and export airfreight, JKIA, 2014-2016



Source: Kenya Airports Authority- 2017

The figure above depicts the slow growth in air cargo throughput at JKIA, Nairobi between 2014 and 2016. Despite the growth and improvements in infrastructure (investments of over $150 million) at Kenya's largest airport, cargoes handled through the airport have not shown impressive growth. Despite suffering from declining yields caused by overcapacity, air cargo traffic in Ethiopia has grown by 13% compared to the previous year. Low air imports activities (transit and transhipments) and over reliance on seasonal fresh produce exports have impacted negatively on Kenya's air cargo growth among other factors. Evidence from KCAA indicate that despite an increase in the passenger traffic by 6% between financial years 2011/12 and 2015/16, cargo traffic dropped by 18% (*see appendix 002*). Clear advocacy proposals need to come out and deal with this. The focus at JKIA (and by KAA) seems to be more inclined towards passenger traffic. However, the success of this will depend on a holistic approach where legislation, institutional framework, training and information technology are included in a reform/policy package.

3.1 Review: Institutional and Regulatory Issues

The regulatory environment is one of the biggest uncertainties facing the air cargo industry. Security, safety and environmental regulations may be changed rather quickly and the economic impact to the supply chain is often not considered. The aviation sub-sector is one of the most regulated transport modes. By its nature, the legal and regulatory framework governing the operation and management of the sub sector, including the provision of services largely emanates from international conventions, which are ultimately adopted and refined through national legislation.

It is argued that the incentives provided by the government has attracted FDI and directly contributed to the growth of horticultural sector by attracting FDI (*appendix 004*). However, a closer look into the sector paints a different picture. The real winners in this economic success have been foreign multinationals who are reaping huge tax free profits and literally smiling all the way to the bank. In Kenya, the floriculture industry is dominated by large scale companies who make up to 70% of total flower exports[3].Such flower firms have not hesitated to exploit the situation by demanding more advantages and support from the government, always backed with threats to relocate to neighbouring countries[4] e.g. Ethiopia and Uganda. Additionally, a large part of their profit does not stay in the country due high level of leakages – main reason for this is that many of the banking transactions take place outside Kenya. HCDA must look into this to check the extent of leakages of foreign exchange in this sector. Very little of the profit is invested back. The technology and information gap between the big multinationals and the small scale growers has heavily contributed to the crowding out of small scale growers from the foreign markets. Very stringent market regulatory standards abroad have led to many small scale growers being locked out. The knowledge generated or shared in this sector by the large scale foreign exporting farms is barely linked to national agricultural research on the larger part.

Our tax incentives and the ensuing competition have largely benefited foreign multinational at the expense of Government revenue, local authorities, domestic enterprise, workers, and the environment. They have only managed to attract short-term investments which build no linkages to domestic economy and encourage exploitive competition.

Export and import fees administration remains an arduous task. It is estimated that JKIA handles an average of at least 5,000 tonnes and 1,300 tonnes of exports and imports respectively, per week (based on the 2016 Statistics-Figure 1). It is estimated that freight forwarders require at least one document per tonne. It then it follows that the exportation of goods requires 5,000 documents, whilst importation requires 1,300 documents per week. The paperwork involved is thus immense and does not augur well with the proposed IATA e-freight (paperless processing) cargo handling documentation processes[5]. Most developed economies are embracing end-to-end green logistics and supply chain best practices, thereby attracting more business, especially from entities that embrace the same.

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[3] Kenya flower Council Statistic 2007

[4] Ken Opala. Flower Companies threaten to move to Ethiopia as Council Protest. Daily Nation 4th Feb.2007

[5] International Air Transport Association (IATA)-(http://www.iata.org/whatwedo/cargo/e/efreight/Pages/index.aspx)

The KRA export entry fees and KAA concession fees are mandatory before clearance for freight uplift yet the two payments are not coordinated and cannot be paid online. This means that time is consumed at the authorized bank at JKIA due to long queues during peak hours. The risk here is for shipments to be refused entry into the export warehouses for further freight processing for air lift due to stringent cut-off times by airlines. If the mandate of the two authorities is coordinated and payments made through a singular online portal, efficiency and speed of freight processing will be achieved.

Similarly, although KEPHIS and HCDA have the ability to invoice (known) exporters monthly, being government institutions, they too should allow a singular online payment portal. This could be akin of the Authorized Economic Operator[6] (AEO) program that is specifically focused on reducing long delays of clearing air cargo imports for qualified business entities. This in turn would reduce the burden of compliance that involves a lot of paper-work that unnecessarily consume valuable time.

Importing countries (mostly) do not require the HCDA export certificate as a mandatory document at their ports of entry, whilst at JKIA, the burden of regulatory compliance is heavy on the exporter since without the same (HCDA certificate), export shipments cannot be released by customs officers for export i.e. the customs entry will not be stamped for release. The GOK needs to look into such regulatory measures – in relation to licensing requirements and procedures, technical standards and anti- competitive practices and on ensuring adequate access to these services.

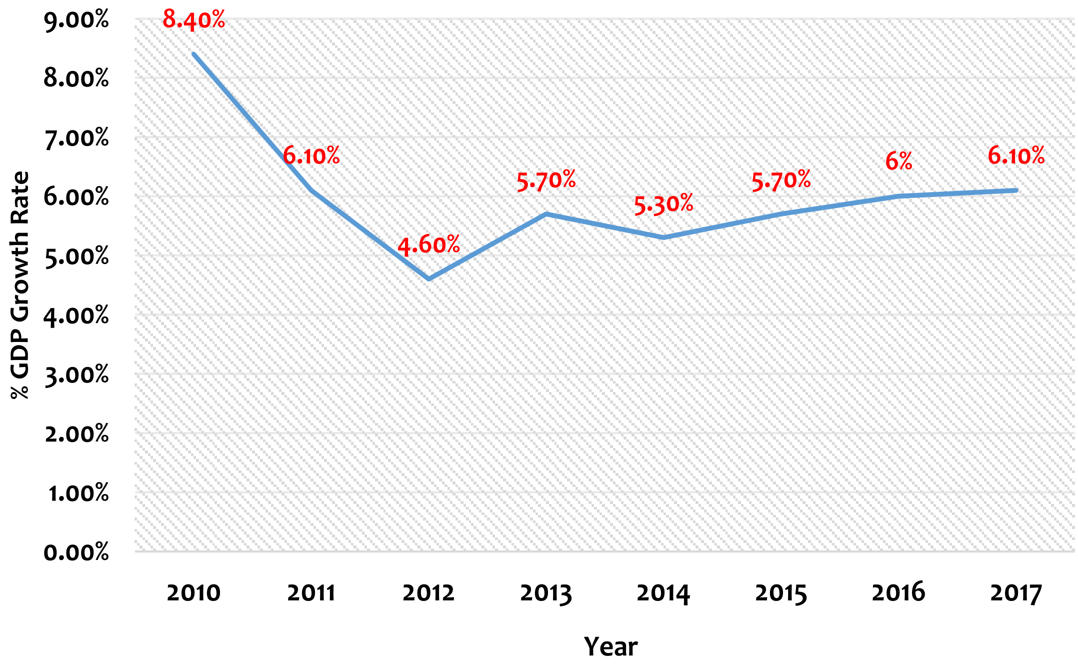
The adoption of e-freight has been very beneficial to the Ethiopian textile sector for example, keeping in mind speed, security, supply chain visibility, and cost effectiveness. In order to facilitate timely delivery in the textile global value chains, their national carrier (Ethiopian Airlines) has also fully automated its communications processes with Ethiopian Revenues and Customs Authority. It is clear therefore that the competitive edge in this case is in IT convergence and automation among regulatory institutions within their airfreight industry.

3.2 Role of Air Cargo in Kenya's Economy

Kenya is the economic, financial, and transport hub of East Africa. Kenya's real GDP growth has averaged at 5% for the last eight years. Since 2014, Kenya has been ranked as a lower middle income country because its per capita GDP crossed the World Bank threshold. While Kenya has a growing entrepreneurial middle-class and steady growth, its economic and development trajectory could be impaired by weak governance and corruption.

[6] The AEO was introduced by KRA in 2008 for qualified Importers and their Clearing Agents

Figure 2: ***Kenya's GDP growth rate, 2010-2017***



Source: Global Finance.Com, 2017 (2017 = Projection/Estimate)

Agriculture remains the backbone of the Kenyan economy, contributing one-third of GDP. About 75% of Kenya's population of roughly 44 million work at least part-time in the agricultural sector, (including livestock and pastoral activities). Over 75% of agricultural output is from small-scale, rain-fed farming or livestock production. The point to note here is that Kenya's exports are predominantly agro-based and foreign exchange earnings from this sector are significant to the GDP. Poor performance in agro-based exports thus affects Kenya's economy. A more competitive airfreight sector than can significantly support agro-based exports is thus imperative.

IATA commissioned a study in 2016 where two air cargo specific indices – the Air Trade Facilitation Index (ATFI) and eFreight Friendliness Index (EFFI) – were developed to assess effectiveness of smart border regulation, customs services and logistics chain. The study concluded that countries with well-developed air cargo connections combined with good quality customs services and smart borders are better at integrating into global value chains.

It is vital therefore that Kenya's logistics environment should facilitate its active participation in fast-paced global supply chains. The airfreight sub-sector is the main driver towards this achievement. Countries that have better air cargo connectivity (measured by the Air Connectivity Index, ACI) also engage in more trade in value terms. With stronger air connections to more countries (and a higher total trade value) a 1% increase in air cargo connectivity is associated with a 6.3% increase in total exports and imports[7].

Air Cargo growth rates in general are seen to be highly susceptible to the fluctuations in the GDP growth rates of Kenya more so in the total-landed and loaded International cargo segment. In

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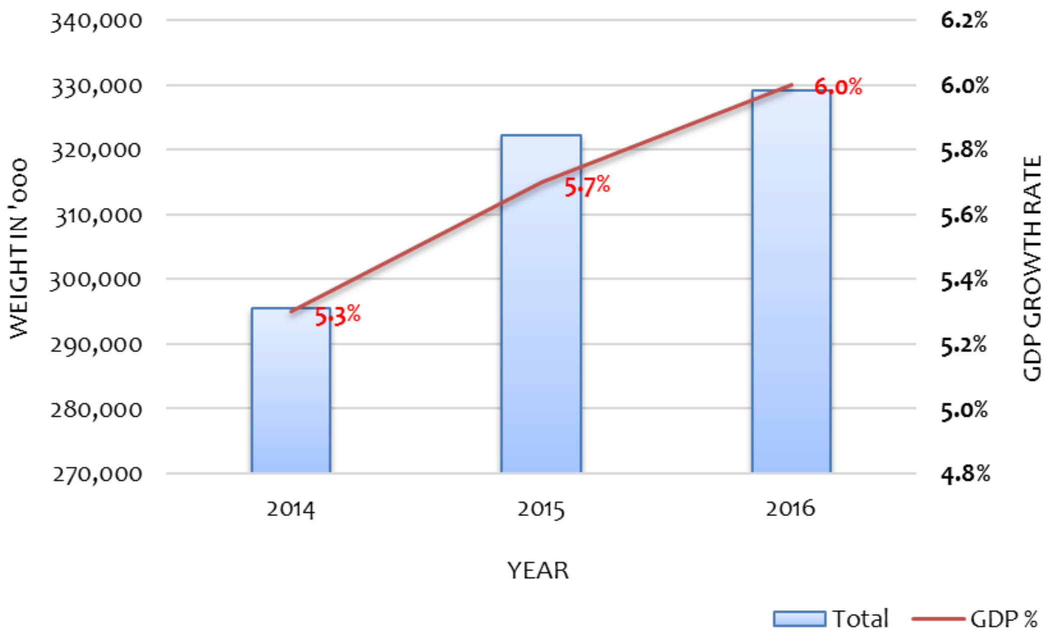
[7] IATA, ACI Study

fact, the growth in cargo seems to be preceding any increase in economic growth. The figure below is depicting the relationship between GDP growth and air cargo growth rates at Kenya's JKI Airport between 2014 and 2016. It highlights the phenomenon of growth of air cargo volumes at much higher amplitude than that are seen in the fluctuations of growth rates in GDP.

Figure 3: Trends in GDP growth rates & volume of air cargo, JKIA, 2014-2016



Source: Author's Adaptation from KAA Statistics and Global Finance.Com-2017

3.3 Drivers of Air Cargo Traffic in Kenya

There is a significant untapped potential for air-cargo in Kenya. An indication of the same can be gauged from the fact that the total air-cargo volume of 330,000 tonnes handled in FY-16 by JKIA airport is far much less than that handled by individual airports like Al Makhtoum International Airport-Dubai (DWC) that is ranked as the 20th International airport by airfreight throughput in the world. DWC handled 897,998 tonnes in 2016, meaning its throughput was much higher than Kenyan airports combined (*see appendix 003*).

- Just-in-time and Just-in-sequence manufacturing coupled with global outsourcing business (BPO- Business Processes Off-shoring) models are emerging in Kenya's industrial landscape - this will continue to push demand for air cargo business in Kenya. Faster movement of raw materials, components, parts and spares help firms in maintaining lower inventories.
- Growth of passenger fleets would provide ample belly capacity for cargo movement both in the domestic and international segment. Between 2011/12 and 2015/16 financial years, the KCAA recorded an increase of 5% in aircraft movements from 305,366 to 322,504 respectively.
- Express (courier) industry is certain to grow many folds in future as they provide end-to-end solutions, which are fast, reliable, on demand, integrated and door-to-door, and can be tracked and controlled throughout the journey.
- GDP in China and India (part of the BRICS) is forecast to grow at an average of 7-9% over the next 5 years and thus China and India could be at the epicentre of supply / redistribution in

the region. Kenya already trades with these two economies and should therefore focus on opening new markets in this region and benefit from the eminent economic growth.

- Sources of optimism also arise out of the fact that the EAC Partner States have committed to fully implement the Yamoussoukro Declaration (1999) as part of the Common Market Protocol and be in line with the on-going efforts by the African Union Commission (AU) and Civil Aviation Commission (AFCAC) to establish single African Air Transport market. As per the Yamoussoukro Declaration, full liberalization will mean the removal of all restrictions on access, price, frequency and capacity in intra-African air transport market, free exercise of the first five freedom rights in air transport and promotion of fair competition.
- Transhipment throughput at Kenyan airports has the potential to grow at a much higher rate than what it is now based on a number of factors. Given its geographic location, Kenya is well placed to capitalize on this opportunity. While neighbouring countries of Kenya, particularly Uganda and Tanzania, have sizeable international trade with Europe, they have very limited direct connectivity to China and the USA. Kenya will soon start flying directly to the USA. Kenya thus has an opportunity to emerge as the preferred transhipment hub for these neighbouring countries to begin with.
- Further, security regulations are becoming stringent in developed regions such as Europe and USA in so far as airfreight is concerned. Kenya has shown its ability to comply with such regulations. Also, Kenya has large scope for multi-modal connectivity because of its vast coast line with access to modern ports in the region. Being a key transportation node in the network of most global airlines and shipping lines, the transhipment service offers a significant market potential. If the growth potential of this segment is appropriately harnessed, Kenyan airports can become cargo hubs of the region.

4 Findings of the Study

4.1 Challenges Facing the Air Freight Sector in Kenya

The major challenges facing the airfreight sector in Kenya as broadly revealed in the in depth interviews administered to key stakeholders in the business i.e. airlines, freight forwarders, shippers, ground-handling agents and regulatory authorities are discussed hereunder.

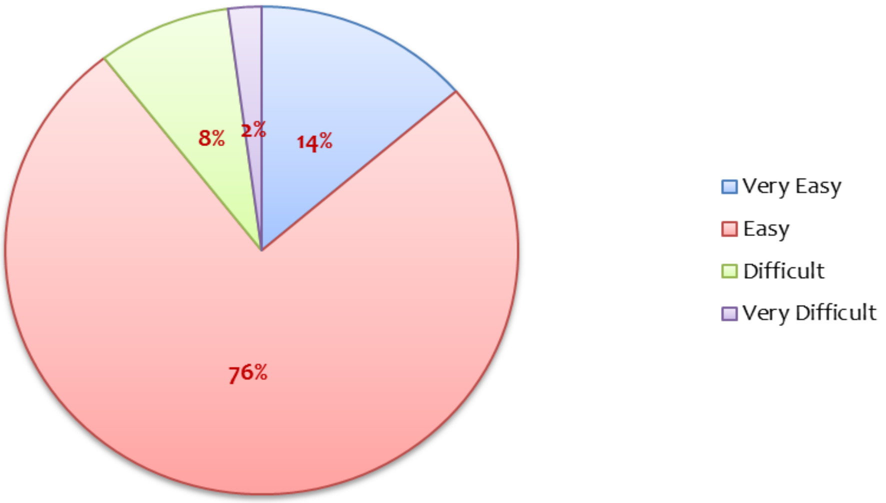
4.1.1 Challenges Faced by Carriers/Airlines

The sample of airline carriers that participated in the survey was a mixture of dedicated freighters, combination carriers and belly carriers. Such carriers, whose nature of operations is both regional and international, highlighted the following areas as the source of challenges facing their operations.

I. **Overcapacity:** The last year (2016) was generally low in terms of both yields and load-factors. For many carriers, this was due to the general overcapacity issue i.e. imports and exports load factors shrunk, caused by continued weak demand. JKIA has a capacity of 5,000 tonnes a week but only an estimated 3,000 tonnes go through every week. This means that most airlines received lower bookings for both (Exports) Northbound and (Imports) Southbound freight. KCAA reported an increase by 19% of total aircraft registrations between 2012 and 2016 from 1165 to 1388 yet cargo declined by 18% during the same period.

II. Ease of Market Entry and Fulfilment of Regulatory Requirements: 76% of the airline/ carriers interviewed at JKIA rate the market entry requirement to be easy while 2% rate it as difficult. They were however quick to point out that the ease of market entry is countered by declining profitability due to stiff competition, overcapacity and high operational costs.

Figure 4: Ease of market entry & compliance with regulations



Source: Collated from study data

III. **Insufficient Return Cargo Occasioned by Trade Imbalances:** About 75% of airline operators interviewed identified the lack of sufficient return cargo especially to Asia and Middle East as their salient air cargo issue in the air freight sector in Kenya. Trade Imbalances exist between China–Kenya, India–Kenya and Middle East-Kenya with air imports exceeding air exports.

IV. **Market Entry Barriers:** Market barriers exist in many African countries such as traffic rights, royalties, cargo taxes, customs and excessive handling charges. Most international airlines interviewed cited that the Yamoussoukro Decision favours the air transport reform policy initiative for African carriers.

V. **Precarious African Trade Lanes:** African air-imports are dependent on high commodity prices especially for the oil and mining sector while air-exports of perishables are dependent on the economies of the importing countries. Most airlines cited that this makes African trade very vulnerable to shocks in the international markets such as the recent Euro-zone crisis and Brexit.

VI. **Stunted Growth of Fleet:** Due to poor financial performance by many of the African airlines most of them experience ageing aircraft fleet. This is evidenced by the dominance of Kenyan skies by foreign carriers (freighters) due to network and fleet advantages.

4.1.2 Key Challenges - Regulatory/Processes/Procedures/Systems

As the regulatory environment impacting the air cargo industry spans over various departments/Ministries, every wing of the Government has to work in a concerted manner to ensure that the overall objective of economic development is advanced without barriers.

I. **Export Shipment Examination:** Requirement of 100% export shipment examination leads to soiling of products and often causes delays of particularly perishables that come directly to transit sheds. Not all shippers use KAA regulated agents (RA3). 30% of such exporters felt that more innovation is needed so that they could simultaneously build-up their shipments on to pallets as inspections by KEPHIS, customs etc. are going on to compress freight-processing times and maintain their products' quality.

II. **Duplication of Documentation:** Generation of export documentation copies is a cumbersome and wasteful exercise as much as not being an eco-friendly process. 40% of exporters felt that these documents have outlived their relevance for their physical existence and should be replaced with electronic mode.

III. **Customs Processes Simplification - via Electronic Data Interface (EDI):** Physical papers are still being used even after implementation of EDI in the processing of import & export cargo. Wherever data is transmitted electronically at least in such cases no hard copies should be required by customs. Physical copies should be only required wherever no electronic data is possible or missing. This will help in reducing the dwell time of import/export cargo by at least 10-20%.

IV. **Transhipment Process Simplification:** If transhipment is allowed to be an electronically permissible pre-arrival process and not necessarily a post-landing procedure, delays will be drastically reduced

Automation / IT Adoption: An overall industry overview, establishing an integrated approach, and adopting a common platform is essentially needed. All relevant government agencies (aforementioned) are yet to be interconnected. This means that data cannot be easily shared owing to manual processes and paper documentation.

4.1.3 Key Challenges - Others

I. Exporters of perishables cited the existence of cartels in the demand-side of their supply chains. Whilst supermarkets/buyers abroad tend collectively to agree to increase their selling prices to their markets, they have stagnated in reciprocating to accept marginal increases in their buying prices from exporters. This has made entry into the export business unattractive.

II. Ground-handling agents are still charging forwarders/shippers for unitization/cargo build-up and still demand that the shippers/forwarders to provide their own man-power for the same. This increases the cost of doing business.

III. Interline agreements between airlines are still unexploited. If this is used wisely, it will create additional outlets for carriers and leverage the traditional point-to-point business lanes. If for example Saudia Airlines would carry cargo destined for London to Nairobi in its un-used capacity ex-Jeddah, with an interline deal with British Airways or Kenya Airways, such shipments would easily find their way to their destination. Instead, Saudia

Airlines sometimes flies ferry/empty enroute to Kenya, after dropping cargo in Addis Abba. The cargo throughput efficiency for JKIA thus remains low.

IV. The ground-handling facilities at JKIA charge the same rates creating the suspicion of collusion or price-fixing. Most (60%) importers and exporters expect them to have competitive rates based on services offered and not similar tariffs that give them no options, even if services are poor. They find the 'price-fixing' exploitative.

V. JKIA needs to market itself further so that there can be more direct flights to targeted destinations for Kenya's exports. Most forwarders feel that the costs of landing in online airports indirectly increases the freight rates while reducing product quality due to excessive handling. For example, although there exist markets in new destinations like Russia and Australia for Kenyan flowers, getting to these destinations is cumbersome and freight visibility is impeded by multiple changing of aircrafts.

5 Recommendations

Issue	Proposed Intervention (Policy/Regulatory/Advocacy)	Rationale
Trade Regulation, Planning and International Benchmarking ▪ The contribution of air cargo sector needs to be adequately and appropriately recognized so that Kenya's fast growing international and domestic trade by air is facilitated, enabled, integrated and expanded.	**Consolidated Air Cargo Logistics Policy** ▪ Formulate a policy that will *inter-alia* through the Ministry of Transport and Infrastructure recognize the criticality of air cargo/air express industry to economic growth and development.	The following objectives are considered critical to the formation of Kenya's air cargo policy: I. Air cargo policy and regulatory framework governing air cargo operations that shall enable and facilitate Kenya's international and domestic trade by ensuring efficient, secure, safe and streamlined air cargo services to and from every part of the country so as to achieve competitive positioning with efficiency, value addition and yield. II. Structured and inclusive planning and timely/ effective implementation of setting up world class infrastructure for air cargo operations at and off airports with full facilitation to achieve greater throughput efficiency, reduced dwell times and maximization of the installation capacity. III. The Policy shall incentivize investments in this crucial area of logistics which is vital for the country's economic development IV. The policy shall strive to promote anti-competitive pricing, licensing and permits in

air cargo operations in all its aspects.

v. The Air Cargo Policy shall actively promote and facilitate aviation/cargo education and training infrastructure to ensure availability of adequate number of skilled/trained personnel at all levels for meeting the growing needs of the industry

Duplication of Mandates by Regulatory Agencies and Burdens of Compliance

- Evidently there are a number of agencies both in government and outside government involved directly and indirectly in operations to airfreight /air cargo. This means that they are all connected with the airfreight sub-sector in Kenya. Therefore, for any meaningful co-ordination among all the agencies to exist, there is need for an inter-Ministerial/agency group brought together through the relevant Ministries that can steer through the reforms suggested in this report in order to achieve the goals and objectives set out to increase the

Air Cargo Charter

- Establish an integrated approach with an industry overview and by adopting a common platform involving a transparent consultative process among various cross border regulatory agencies and all other stakeholders as against a compartmentalized approach with multiple systems. This will be through the creation of a mechanism that will enable collaboration amongst key stakeholders and act as an enabler for efficient investment in the creation and operation of air cargo logistics

The main functions of the Air Cargo Charter could be laid down on the following lines: -

- To lay down policy guidelines for setting up of Air Freight Stations on the lines of ICD/CFS and to ensure expeditious clearance of the proposals for the same. This will facilitate multi-modal transportation especially for transit shipments.
- To lay down policy guidelines for Public Private Partnership model of development of Air Cargo facilities at Airports and at Off-Airports and to ensure expeditious clearance of the proposals for the same.
- To periodically review the implementation of the

competitiveness of the airfreight sector. This Board has to be duly empowered to guide the respective Ministries and Departments to take policy decisions relating to the air cargo logistics sector.

Performance Standards Relating to Quality, Continuity

infrastructures including appropriate rail and road links. The Ministry of Transport, Infrastructure, Housing and Urban Development being the nodal Ministry for providing air, port and related infrastructure and the air transport services, the proposed Air Cargo Charter shall be chaired by the Permanent Secretary of this Ministry, of the Government of Kenya (GOK). The Charter shall comprise of but not limited to the following Ministries/Departments of the GOK:

- Ministry of East Africa Affairs, Commerce, and Tourism
- Ministry of Health
- Ministry of Industrialization and Enterprise Development
- Ministry of Finance (Excise & Customs Department)
- Ministry of Environment
- Ministry of Agriculture, Livestock and Fisheries
- Representatives of Private Sector, Air Cargo Handlers and Carriers

The Air Cargo Charter may co-opt other secretaries to the GOK and top officials of financial institutions, banks and professional experts of Industry and Commerce, and representatives from the County Governments as and when necessary.

Service Levels for Key Performance Indicators

proposals cleared by the Board

- To review, on a continuous basis the general and sectoral policy regimes governing Air Cargo Logistics operations with a view to remove bottlenecks to efficiency
- To resolve Inter-Ministerial issues that affect the air cargo logistics operations in the country and to achieve better efficiency
- To co-ordinate with the County Governments on inter-alia, issues relating to inter-modal connectivity especially for those with international airports.
- To monitor implementation of Quality of Service parameters by various stakeholders in the air cargo logistics supply chain.
- To review the progress on development of major gateway airports (Nairobi, Mombasa, Kisumu, Isiolo, Eldoret) as Cargo hubs through facilitating transshipments and exports.
- All proposals for approval of air cargo terminal operators under the Kenya Revenue Authority regulations etc. shall be vested with the proposed Air Cargo Charter. This will ensure that policy implementation is uniform across the Country (Counties), which is very important from every stakeholder's perspective.

It is therefore recommended as follows:

- For all the major airports, the Ministry of Transport and

and Reliability of Service

- Users of the cargo facilities at the airport have strongly pleaded for laying down of appropriate performance standards relating to quality, continuity and reliability of service in respect of the cargo operations in the airport cargo terminals. This is an essential and just requirement considering that the users pay for such services and they are entitled to demand appropriate levels of services.

- Presently service levels are not mandated. There is a regulatory gap in this respect which needs to be filled. Quality regulation is needed in order to overcome problems of inadequate or incorrect information being available to airport users, airlines etc. In practice, regulators can undertake quality assessments at airports by inter-alia establishing standards and measuring performance.

- It is also critical to establish definite, measurable performance parameters at every stage in the flow of cargo, documents and information.

Infrastructure should lay down quality of service standards for key performance indicators in respect of cargo handling and movement (both international and domestic) and notify the same for all the stakeholders to comply with.

- Scope, responsibility and liability for every agency in the entire supply chain should be clearly defined consistent with the legal framework governing these operations.

- Service standards should be mandated for various stakeholders in the chain such as carriers, shippers, ground handlers, customs, freight forwarders and clearing agents.

- The quality policy should also spell out the quality standards required from the air cargo complexes for respective industries such as pharmaceuticals, perishables, textiles etc.

- International benchmarks should also be kept in view while laying down standards for key performance indicators.

Cargo Transhipment Hubs

- Transshipment cargo is crucial for cargo hub growth. It is imperative that this is innovatively harnessed. International evidence suggests that increased transshipment cargo activity in cargo hub airports results in better utilization of assets and thus overall reduction in the cost of providing service to all cargo users which again stimulates demand for services in such airports. It is a virtuous cycle e.g. Hong Kong, Dubai, Incheon etc.

Promote Key Gateway Airports as Cargo Transhipment Hubs

- Kenyan airports are suitably located to act as transfer hubs for various continental and intercontinental routes. These routes, at present are dominated by European and Middle Eastern carriers. In spite of geographical advantage of Kenyan airports, they have not been able to successfully compete in the market to capture such intercontinental traffic.

It is therefore recommended as follows:

- Comprehensive economic agreements and other trade agreements should be entered into by the GOK with potential target markets e.g. China, Australia, USA etc. to improve trade and business integration with these nations.
- Facilitate customs policies for the transshipment process through a standardization policy for procedures. As more and more carriers fly out to International destinations through or from Nairobi, the transshipment segment then remains a significant but untapped market potential.

Free Trade Zones Review

- Special Economic Zones act as a magnet for investors hence the need for Kenya's airports to set up the hubs. Special zones generate additional economic activity that leads to promotion of exports of goods; promotion of investment from foreign and domestic sources; and development of infrastructural facilities that attract large investments.

Airport Free Trade Areas /Zones

- Implementation of Airport Free Trade Areas at select airports will increase the **a**ir haul capacity through increased input of import volumes and exports alike

The research team therefore recommends the following:

- The GOK should create a foreign trade instrument to promote Kenyan service exports. With this tool, service exporting companies, including consortiums, may request authorization from the Kenya revenue to import capital goods and spare parts (the latter only for air transportation services) totally free of import tariffs and VAT, in exchange for providing exportable services (1.5% the FOB value of the imports capital goods). The system should allow for the import of the capital goods corresponding to the tariff items listed by the Ministry of Finance.
- Since the proposed locations will be within the airfreight hinterland (or proximity) of nominated international

airports in Kenya, spare parts imports should be allowed only for air transportation services, and should be limited to the tariffs items listed by the Ministry of Finance/ Customs and Excise department. This will definitely bring about increase in import-export activity and enhance the competitiveness of the airfreight sub-sector in Kenya.

- There should be cross-county coordination and collaboration platforms for efficient competitive value-chains and to undertake learning missions to enable the designing of effective SEZs.

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Appendix

001 Infrastructures and Service Providers That Support the Airfreight Business Within The JKIA - Nairobi

Source: Adapted from KAA Statistics 2017

Ground & Ramp Handling Companies	Transit Shed	Courier Companies	Clearing & Forwarding Companies	Cargo Belly Carriers	Hub Airlines	Cargo Carriers (Freighters)
Kenya Airways	Kenya Airfreight Handling Limited – KAHL	DHL	SDV Transami	Kenya Airways	Astral Aviation	Kenya Airways Cargo
Swissport	Transglobal Cargo Centre	UPS	Freight in Time	British Airways	Kenya Airways	Air France/KLM
Tradewinds Ltd	Kenya Airways Cargo Centre	TNT	Kuehne & Nagel	South African Airways	Fly 540	Lufthansa Cargo
Kenya Aerotech	Siginon Freight	FedEx	Sky Train	Air Rwanda	Africa Express Airlines	Emirate Sky cargo
Eurocraft	Swissport Cargo Complex	Total Plus	Total Touch	Swiss WorldCargo	Safari Air Express	Cargolux
		Sky Express	DB Schenker		Blue Bird Aviation	Ethiopian airlines
		Postal Corporation	Siginon Freight		Marshland Airline	Martin Air
			Mitchell Cotts		Juba Airways	Saudia Airlines
			Maya Freight			Etihad Crystal Cargo
			Mechanized			Egypt Air
			Andy Forwarders			Singapore Airlines
			Air Connection			Qatar Airlines
			Fox Logistics			Turkish Cargo
						MK Airline

002 Five Year Growth in Aviation Sector in Kenya

EASA = East Africa School of Aviation

ANS = Aircraft Navigation Systems

Source: KCAA,2017

INDICATORS	2011/2012	2015/2016	% CHANGE
Aviation Personnel	6,719	9,062	35%
Aircraft Movements	306,366	322,504	5%
Passenger Traffic (Millions)	8.85	9.5	6%
Total Aircrafts Registered	1165	1388	19%
Cargo (Airfreight, ‘000Tonnes)	309	255	-18%
Air Operator Certificate Holders (AOC)	73	87	19%
Aerodrome & Airstrips	450	463	3%
Approved Training Org. (ATO)	5	19	280%
Availability of ANS Equipment	99.03%	98.6%	-0.4%
Approved Maintenance Organization (AMO)	86	139	62%
EASA Students Number	985	1449	47%
Licensed Air Operators	295	335	14%

003-Top 20 International Airports by Airfreight Traffic -2016

***Includes Transit Freight**

Rank 2016	Rank 2015	Airport City/Country/Code	Freight (Metric Tonnes)	
			Loaded and Unloaded	% Change
1	1	Hong Kong, HK(HKG)	4'521'028	3.2
2	3	Incheon, KR(ICN)	2'602'556	4.5
3	2	Dubai, AE(DXB)	2'592'454	3.5
4	4	Shanghai, CN(PVG)	2'522'703	5.3
5	5	Tokyo, JP(NRT)	2'083'220	2.3
6	6	Taipei, TW(TPE)	2'081'043	3.8
7	8	Frankfurt, DE(FRA)	1'986'117	1.8
8	10	Singapore, SG(SIN)	1'969'400	6.3
9	9	Paris, FR(CDG)	1'915'504	2.9
10	7	Anchorage, AK, US(ANC)	1'901'194	-2.8
11	14	Doha, QA (DOH)	1'741'586	20.7
12	11	Miami, FL, US(MIA)	1'716'708	-1.2
13	12	Amsterdam, NL(AMS)	1'662'282	2.6
14	13	London, GB(LHR)	1'539'775	3.0
15	15	Bangkok, TH(BKK)	1'259'444	5.9
16	17	Los Angeles, CA, US(LAX)	1'175'007	3.0
17	16	Chicago, IL, US(ORD)	1'089'838	-1.8
18	19	Leipzig, DE(LEJ)	972'884	6.3
19	18	New York, NY, US(JFK)	969'751	-2.6
20	20	Dubai, AE,(DWC)	897'998	0.8
Top for 2016			37'200'492	3.4

Source: Airports Council International, 2016

004 The incentives offered to foreign investment in targeting the flower sector

Incentives	Justification
▪ 10-year corporate income tax holidays ▪ 10-year withholding tax holiday on dividends and other remittances to non-resident parties ▪ Perpetual exemption from VAT and customs import duty on inputs, capital equipment and other resources ▪ Perpetual exemption from payment of stamp duty ▪ Subsidized financing loans	▪ Increased government revenue. ▪ The inward investments will lead to job creation ▪ It will lead to technology/ know-how spill over ▪ Facilitate a backward/forward linkage to local economy

Source: Tax Justice Network for Africa

005 List of Air Cargo Experts/ Industry & Other Experts/Interviewees/Respondents

Name & Designation	**Organization**	**Contact**
Captain Kai Tinga Managing Director	Penial Air	+254 718 525 743 kaitinga@penialair.co.ke
Carol Muumbi Marketing Officer	Horticultural Crops Directorate	+254 2 0213 1560 cmuumbi@agricultureauthority.go.ke
Charles K. Mwaita Marketing Officer	Kenya Airports Authority	+254 20 822111 Charles.mwaita@kaa.go.ke
Charles Kenji Manager Cargo Kenya	Swiss World Cargo	+254 722 779 011 Charles.kenji@swiis.com
Darren Brown Managing Director Kenya & East Africa	DB Schenker	+254 706 787 787 darren.brown@dbschenker.com
David Kiangi Trade Facilitation Manager	Kentrade	dkiangi@kentrade.go.ke
Don Omondi Operations & Sales Manager	AeroSea Charter Company	+254 717 294 446 don@a-charter.com
Fred Gitonga Head of Airfreight, Kenya	DB Schenker	+254 706 747 747 fred.gitongs@dbschenker.com

John Karanja Duty Manager	Swiss World Cargo	+254 722 779 012 John.karanja@swiss.com
Ken Mbogo Regional Director Africa	Saudi Cargo	+254 735 808 888 kmbogo@saudi.com
Michael Muriithi Area Commercial Manager EA & MRU	AIG/ British Airways World Cargo	+254 722 519 316 Michael.muriithi@ba.com
Morris Wambua Director	Callfast Services Ltd	+254 722 523 382 mwambua@callfast.co.ke
Mustwafa Murad Commercial Manager	Astral Aviation Limited	+254 795 752 627 mustwafa@astral-aviation.com
Noam Zeevi Director	ND Project	Noam.zeevi@nd-project.com
Patricia Odida Cargo Sales Manager Kenya	Kenya Airways	+254 733 363 132 Patricia.odida@kenya-airways.com
Silas Oswe M & E Manager	Kentrade	soswe@kentrade.go.ke
Stephen Otieno Business Development & Customer Service Manager	Kuehne & Nagel	+254 722 205 395 Stephen.otieno@kuehne-nagel.com
Tobias Alando Head Of Membership Development	Kenya Association of Manufacturers	+254 722 201 368 Tobias.alando@kam.co.ke
Benjamin Omolo Managing Director	Polygon Logistics Limited	+254 722204835 ben.omolo@polygon.co.ke
Brian Itachi Operations Manager	Lemille Investment Limited	+254 723 301 877 Lemille30@gmail.com
Daisy Kiaye Operations Manager	Callfast Services Limited	+254 20 6827 684/4 info@callfast.co.ke
Dennis Onyango Orono	Cargotech Freight Logistics	+254 728 956 887

Managing Director	Limited	denniso@cargotechfreight.com
Evans Mutua Kasyula Export Manager	Freight-In-Time	+254 732 900 843
Fredrick Otieno Export Operations	WillFreight Express Cargo Services	+254 700 217 840 info@willfreight.co.ke
George Koli Senior Reservations Agent	Swiss World Cargo	+254 722 779 010 George.maina@swiss.com
Gerald Agatsiva Director	Agam Logistics Limited	+254 790 168 806 Geraldkigasia170@gmail.com
Henry Ndive Commercial Manager	Fox International Logistics	+254 733 723 335 Henry.ndive@foxlogistics.co.ke
Isaac Nandikove Director	Westlife Logistics limited	+254 724 892 054 info@westlifelogistics.com
Jeremiah Nzoka Supervisor	Mitchell Cotts	+254 735 128 707 Jeremiah.nzoka@mitchellcotts.co.ke
Kamau Supervisor	Flowerwings Limited	+254 722 203 111 cs@flowerwings.com
Margaret Mwaniki Sales Representative	Kimman Exports	+254 721 988 707 margaretmwaniki@yahoo.com
Martin Munyalo Logistics Manager	Cargo World Conveyors Limited	+254 722 523 604 martin@cargoworldconveyors.com
Paul Musau Cargo Manager	Fantasy Freight Services	+254 723 477 509 info@fantasyfreightservicesltd.co.ke
Paul Owino Operations Manager	Monstera Cargo Limited	+254 721 347 696 paul@monsteracargo.com
Prince Mathews General Manager	FreightWings Limited	+254 722 204 389 pmathews@freightwings.co.ke
Robert Lago Gavin	Quatro Consortium Ventures	+254 727 067 883

Export Manager		quatrocvkenya@gmail.com
Robi Karara Chief Executive Officer	Robico Chemicals	+254 724 085 056 rkarara@robicochemicals.com
Ronald Mangoye Operations Manager	Polygon Logistics Limited	+254 705 865 436 Ronald.mangoye@polygon.co.ke
Susan Akwesi Supervisor Customer Services	Saudia Cargo	+254 20 6822 500/501 sakwesi@saudia.com
Amos Oyier Operations Manager	Africair Management & Logistics Limited	+254 735 250 200 amosoyier@aficair.aero
John Otaro Were Reservations Manager	Turkish Cargo	+254 722 117 657 johnwere@hotmail.com
Peterson Kimeu Manager, Cargo Operations	Swissport Cargo Services	+254 724 759 720 Peterson.kimeu@swissport.com
Silas Kashindi Director	Lift Cargo / Perishable Movement Limited	+254 725 570 920 commercial@liftcargo.co.ke