Air Freight: A Market Study with Implications for Landlocked Countries
AIR FREIGHT: A MARKET STUDY WITH IMPLICATIONS FOR LANDLOCKED COUNTRIES
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**FOREWORD**

It is a pleasure to welcome this study on air freight which has been skillfully created by a team of World Bank professionals. This publication, which contains a comprehensive analysis of issues related to air freight, addresses in detail air cargo operations in its most diverse dimensions.

Like other growing industries, the air freight industry is expanding exponentially. The issues faced by the industry are complex and their impact on other business operators is tangible. Transportation, an essential service relied upon by the air freight industry, makes it inevitable that this industry affects almost every other business and brings to bear its relevance and interest to business management.

There are few studies of this nature which have drawn information from a wide range of research in the manner in which the World Bank team of authors has accomplished, both effectively and adroitly.

I consider this study to be particularly valuable to the international aviation community, both in terms of its penetrating analysis as well as its well-reasoned economic discourse which culminates in down to earth and practical case studies. The thrust of this study brings to bear the important and useful role of air transport in the carriage of freight, as well as the compelling need to be aware of the implications that a global economic crisis, such as the one we are experiencing at present, has on the carriage of air freight.

Without doubt this study fits squarely within the mission of both the World Bank and the International Civil Aviation Organization (ICAO), which have been partners in offering to the aviation industry a series of annual air transport development fora in various regions of the world since 2005.

I am pleased to note that this publication is yet another step in the indomitable drive and conviction that our two organizations have in collaborating with each other to foster the development of air transport.

Dr. Taïeb Chérif  
Secretary General  
International Civil Aviation Organization
The capability of many poor countries to grow through trade integration and export development is constrained by physical constraints such as distance to market, but also by trade facilitation bottlenecks which can be even more daunting than distance. This is especially true for developing landlocked countries often dependent on a fragile transit system and long corridors just to connect to international shipping routes. For those countries, air transport has always attracted much interest as a mode of transportation that avoids the access challenge and meets the needs for nontraditional export opportunities notably for high value goods.

Several examples confirm the potential of air cargo for economic development of poor countries (including some of the least developed countries): fresh flower and fresh fish and sea food exports from Africa and Latin America are well known today. But these developments have been comparatively modest. The industries developed globally over the last decade along North-South routes linking rich countries and major emerging economies. In poor countries, the initiative came from the private sector, often starting from niche opportunities. There are also lessons to be learned on the enabling role of governments when it comes to trade facilitation initiatives at airports, liberalization or partnerships to facilitate the delivery of key services, and infrastructure.

Sustainability comes naturally to mind, as the last year saw dramatic negative trade developments for poor countries. Higher fuel prices and exit of key cargo providers in Africa point to dependences that the document also tries to analyze. Volatility and risks are significant and hamper the potential of air-freight for developing countries, as the availability and cost of service is very dependent on market trends in rich economies.

The reader will find here probably the first in depth look at this important topic in trade and development. It has been prepared by a team of experts with background in air-cargo, logistics, and development. We hope it will be of interest to a wide audience, including policy makers and development organizations. It provides a robust foundation and inputs for analyzing export diversification projects and initiatives. Finally this work should encourage further analysis and development of the theme of air freight, which is by essence going through rapid changes.
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Lastly, we would also like to acknowledge the participants who attended the World Bank’s Brown Bag Lunches and thank them for their constructive feedback. We hope that this publication will encourage further substantive discussion on this topic.

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ABBREVIATIONS AND DATA NOTES

AAWH  Atlas Air Worldwide Holdings
APEC  Asia-Pacific Economic Cooperation
ATA  Air Transport Association
ATPA  Andean Trade Preference Act
FAK  Freight All Kind
FOB  Free on Board
FTK  Freight ton-kilometer
GSP  General System of Preferences
HCDA  Horticultural Crop Development Association
IATA  International Air Transport Association
ICAO  International Civil Aviation Organization
ILS  Instrument Landing System
IPO  Initial Public Offering
IT  Information technology
JIT  Just in Time
Km.  Kilometer
LDC  Less Developed Countries
MAS  Malaysia Airlines
MJ  Million joules
mn  million
MRO  Maintenance, Repair and Overhaul
MTOW  Maximum Take-off Weight
OEM  Original Equipment Manufacturer
OEW  Operation Empty Weight
RFS  Road freight service
RTK  Revenue ton-kilometer
SAA  South African Airways
SEZ  Special Economic Zone
TACT  The Air Cargo Tariff (IATA)
ton  metric ton
UAE  United Arab Emirates
ULD  Unit Load Devices
U.S. DOT  United States Department of Transportation
USDA  United States Department of Agriculture

All dollar amounts are U.S. dollars unless otherwise indicated.
Billion means 1,000 million.