



AIR TRANSPORT

ANNUAL REPORT 2014

Transport & ICT Global Practice







**END EXTREME
POVERTY WITHIN A
GENERATION AND
BOOST SHARED
PROSPERITY**

THE WORLD BANK MISSION



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PROVIDING CONNECTIVITY AND ENABLING GROWTH

It is with great pleasure that I present to you the 10th edition of the World Bank Group (WBG) Air Transport Annual Report. The WBG has financed aviation related projects for over sixty years. However, it was only ten years ago that a formal air transport activity was established. Since then, we have presented the WBG's air transport practice in a comprehensive annual report, which aims to outline the objectives, instruments, actions, and outcomes of our development activities in the field of air transportation.

The WBG has set two ambitious goals: to end extreme poverty by 2030 and to boost shared prosperity for the poorest 40 percent. You might be wondering -

"Air transport facilitates integration into the global economy and provides vital connectivity on a national, regional, and international scale."

what does air transport have to do with development? Transport is not, of course, an end in itself. However, it is an important enabler to achieving economic growth and development. Air transport facilitates integration into the global economy and provides vital connectivity on a national, regional, and international scale. The success of the tourism and trade industries, for example, rest solidly on air transport.

2014 was a year that highlighted the growing importance of connectivity and competitiveness in our global economy. Airlines transported around 3.3 billion passengers and 50 million metric tons of cargo across a network of 50,000 routes. Overall, the airline industry posted a collective net profit of \$19.9 billion, with an average net profit margin of about

3%. This vast global network had huge economic importance, generating an estimated 58 million jobs and \$2.4 trillion in business activity.

There are, however, great regional differences in growth of air traffic. For example, while North American airlines experienced a modest 2.3% annual increase, annual growth for Asia Pacific carriers has been around 7.5%, while the Chinese domestic market jumped to an annual 15.4%. Africa's growth was only 1.5%, which was partially due to the Ebola outbreak. The strongest regional growth was registered in the Middle East, where carriers increased traffic by 11.7%.

"Ensuring sustained growth entails necessary investments in infrastructure, institutions, and people."

Ensuring sustained growth entails necessary investments in infrastructure, institutions, and people. Many countries are investing to modernize and build new airports to keep up with the expected growth in passengers. Air traffic control systems are being upgraded as modern satellite-based surveillance and communication systems replace traditional and antiquated ground-based systems. Safe and efficient air transport systems are founded on robust institutions and regulations, particularly in the implementation of safety standards.

Growth is also contingent on meeting demand for qualified personnel, as over half a million new pilots and technicians are needed by 2030, most in emerging markets. Many of our clients struggle with inefficient and deficient infrastructure and/or poor compliance with air safety standards. The WBG continues to be actively engaged in every region on projects related to air transport policy and regulation, safety, infrastructure rehabilitation, institutional strengthening, and capacity building to help clients achieve a safe, functional, efficient, and affordable air transport system.

We can still make a greater impact globally. As we are finding in many client countries, fiscal and budgetary constraints pose a major challenge to developing air transport systems. We therefore begin the new year with a focus on promoting Public-Private Partnerships (PPPs). The success of and return on investments depend heavily on strong partnerships between the public and private sectors. Within air transport, good governance and liberalization of ownership and traffic rights are a few critical elements needed to facilitate private sector involvement.

Finally, the environment remains the biggest challenge for sustainability in aviation. The industry remains committed to finding ways to address aviation's greenhouse gas emissions. The industry has set a goal of carbon neutral growth by 2020, and states have agreed with ICAO to develop a global market-based measure. A global emissions trading scheme may be introduced, and developing countries will be expected to participate.

One hundred years after the onset of commercial aviation, the industry has grown to become an essential driver of economic growth and poverty reduction. I believe that we, the World Bank Group, with cross-sectorial knowledge and resources, technical capabilities, scale, and partnerships are uniquely positioned to deliver transformational change in the sector.

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Dr. Charles E. Schlumberger
Lead Air Transport Specialist

ABBREVIATIONS

ADS-B/C	Automatic Dependent Surveillance – Broadcast/Contract
AGL	Aeronautical Ground Lights
ATC	Air Traffic Control
ATM	Air Traffic Management
BOT	Build-Operate-Transfer
BOO	Build-Own-Operate
BOOT	Build-Own-Operate-Transfer
BTO	Build-Transfer-Operate
CAA	Civil Aviation Authority
CES	Charles E. Schlumberger, Lead Air Transport Specialist (WBG)
DME	Distance Measuring Equipment
GNSS	Global Navigation Satellite System
EASA	European Aviation Safety Agency
EC	European Commission
ESW	Economic Sector Work
FAA	Federal Aviation Administration (United States)
FY	Fiscal Year
IATA	International Air Transport Association
IASA	International Aviation Safety Assessment (FAA)
IBRD	International Bank for Reconstruction and Development (WBG)
ICAO	International Civil Aviation Organization (UN Agency)
IDA	International Development Association (WBG)
IFC	International Finance Corporation (WBG)
ILS	Instrument Landing System
IOSA	IATA Operational Safety Audit
LCC	Low-Cost Carrier
MIGA	Multilateral Investment Guarantee Agency (WBG)
PPPA	Public Private Partnership Agreement
PPP	Public-Private Partnership
SARPS	Standards and Recommended Practices
TA	Technical Assistance
US DOT	US Department of Transportation
USOAP	Universal Safety and Security Oversight Audits Program (ICAO)
VOR	VHF Omni-Directional Radio Range
VSAT	Very Small Aperture Terminal
WBG	World Bank Group
WRSS	World Routes Strategy Summit





This report benefited from the contributions of a number of staff members from across the World Bank Group.

We would like to thank Sabine Beddies, Christopher Bennett, Lucie Blyth, Carlo Bongianni, Pierre Bonneau, Nicholas Callender, Mohammed Dalil Essakali, Christopher De Serio, Adam Diehl, Anca Dumitrescu, Tiguist Fisseha, Harsh Gupta, Donald Hill, Mauricio Ibanez, Olivier Le Ber, Alexandre Leigh, Ramatou Magagi, Laurie Manning, Yonas Mchomvu, Gylfi Palsson, Pierre Pozzo di Borgo, Noroarisoa Rabefaniraka, Binyam Reja, Josphat Sasia, Kavita Sethi, Evelina Stanoeva, Limei Sun, Ariana Tiwari, and Vincent Vesin.

We would like to thank Pierre Guislain, Senior Director of the Transport and ICT Global Practice and Jose Luis Irigoyen, Director of the Transport and ICT Global Practice for their continued guidance and support, and Shruti Vijayakumar for research and compilation of this report.

The Mission

The World Bank Group (WBG) is a vital source of financial and technical assistance to developing countries around the world through the provision of low-interest loans, grants, credits, and advisory services. The World Bank Group aims to achieve two major goals by 2030:

- ◆ End extreme poverty by decreasing the percentage of people living on less than \$1.25 a day to no more than 3 percent.
- ◆ Promote shared prosperity by boosting the income of the bottom 40 percent of the population in every country.

The World Bank Group aims to tackle these challenges through financing, cutting-edge solutions, cross-sectorial knowledge, and partnerships with relevant public and private sector actors, as well as civil society. The organization's investments span across a number of sectors including education, health, public administration, private sector development, agriculture, and transport and ICT.

The Institutions and New Structure

The International Development Association (IDA) is the part of the World Bank that helps the world's poorest countries by providing interest-free loans, or credits, and grants to governments of the poorest countries. The World Bank's original lending arm is the International Bank for Reconstruction and Development (IBRD), which lends to governments of middle-income and creditworthy low-income countries. The International Finance Corporation (IFC) provides loans, equity, and advisory services to stimulate private sector investment in developing countries. The Multilateral Investment Guarantee Agency (MIGA) provides political risk insurance or guarantees to facilitate foreign direct investment in developing countries. The International Centre for Settlement of Investment Disputes (ICSID) is also a part of the WBG, but will not be covered in this report.

The WBG has recently undergone major institutional change, and Transport and ICT is now a Global Practice. The Bank's new nimble structure with Global Practices and Cross-Cutting Solution Areas is designed to strengthen collaboration and improve knowledge sharing across the institutions. These changes are intended to improve operational efficiency, financial sustainability, and ultimately work toward meeting the twin goals of ending extreme poverty and boosting shared prosperity.

Enhancing Mobility and Connectivity

Transport is a critical driver of economic and social development. Transport infrastructure connects people to jobs, education, and health services; it enables the supply of goods and services around the world; and allows people to interact and generate the knowledge and solutions that foster long-term growth. The World Bank transport sector investments have facilitated more efficient trade and enhanced human development through greater mobility.

As a multi-sectorial institution, the World Bank Group is uniquely positioned to support large-scale transformational projects and deliver innovative cross-cutting solutions for greater connectivity. The World Bank's strategy in the transport sector, adopted in 2008, envisioned mobility solutions for developing countries that would be safer, cleaner and more affordable. These three principles guide the Bank's infrastructure investments and policy work. The WBG is the largest provider of development finance for transport globally, with an active portfolio of around US\$47 billion.

Air transport plays an important role in fostering development, particularly in facilitating economic integration, generating trade, promoting tourism, and creating employment opportunities. It facilitates integration into the global economy and provides vital connectivity on a national, regional, and

international scale. However, in many countries the air transport equipment and infrastructure, regulatory frameworks, and safety and security oversight systems are inefficient or inadequate.

In view of these challenges and to assist clients in establishing a safe, secure, cost efficient, available and reliable air transport network, the Bank is mandated to undertake the following major activities:

- ◆ Operational work through projects and technical assistance.
- ◆ Economic sector work, research, and knowledge dissemination on air transport related issues.
- ◆ External relations and collaboration with partner organizations.
- ◆ Internal services (such as the airline advisory service for WBG staff for mission travel).

Portfolio and Project Highlights

In Fiscal Year 2014 (FY14), WBG's Air Transport Portfolio amounted to US\$1.43 billion, an increase of 5% from Fiscal Year 2013 (FY13). The Air Transport segment makes up over 3% of the WBG's US\$47 billion Transport portfolio. The WBG's FY14 Transport portfolio consists approximately 19% of the WBG's active portfolio of US\$248 billion (excluding MIGA).

The Air Transport portfolio includes around 30 projects or project components through the International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA), as well as the International Finance Corporation (IFC)'s portfolio of lending and investment advisories in the aviation sector.

Project highlights in 2014 include strengthening of investments in the Pacific Islands through the approval of the Samoa Aviation Investment Project, the Pacific Aviation Safety Office Reform Project, and additional financing for ongoing projects in Tuvalu and Kiribati. Other major ongoing projects include the Cairo Airport Development Project, which is being funded through a US\$280 million IBRD loan and the Shangrao Sanquingshan Airport, which is being funded through a US\$50 million IBRD loan.

The World Bank also continues to be actively engaged in Africa, with ongoing commitments in Tanzania, Kenya, Burkina Faso, and the Democratic Republic of Congo, amongst others. The focus of these projects is primarily on safety, infrastructure rehabilitation, institutional strengthening, and capacity building.

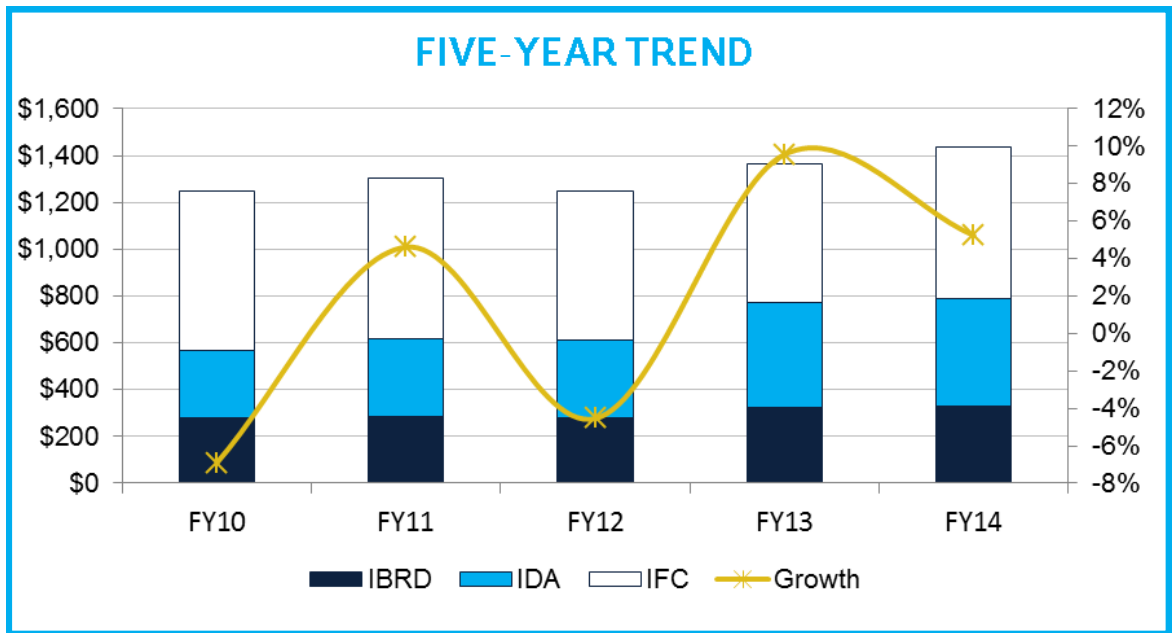
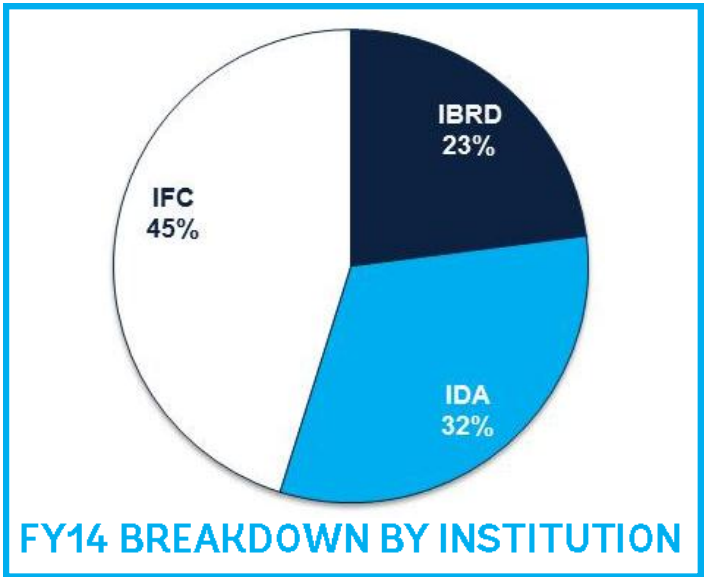
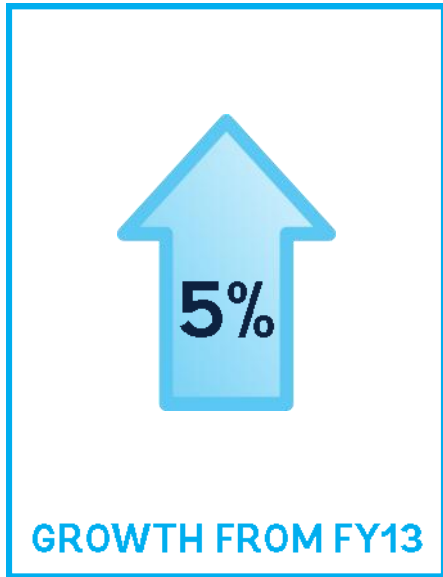
The International Finance Corporation (IFC) represented the highest growth segment, with a 9% increase from FY13 to US\$647 million. Several new IFC commitments were made in 2014 including ASECNA in Africa, Queen Alia II in Jordan, and Zagreb Airport in Croatia. IFC Advisory Services have also been initiated in Brazil (Galeão and Confins Airports) and in Saudi Arabia (Jeddah Airport and Taif Airport) in 2014. MIGA has been involved in the air transport sector in the past through the issuance of guarantees for two airport projects in Ecuador and Peru.

Research and External Relations

World Bank staff members continue to represent the organization externally at various air transport conferences and events, notably the World Routes Strategy Summit 2013 in Las Vegas, which was co-organized by the WBG, ICAO, and Routes. Research and knowledge dissemination also continue to be critical functions of the WBG's Air Transport Community of Practice (ATCOP). The practice maintains a strong commitment to addressing the challenges of its client countries in Fiscal Year 2015.

AT A GLANCE

\$1.4B
 FY14 WBG
 AIR TRANSPORT PORTFOLIO



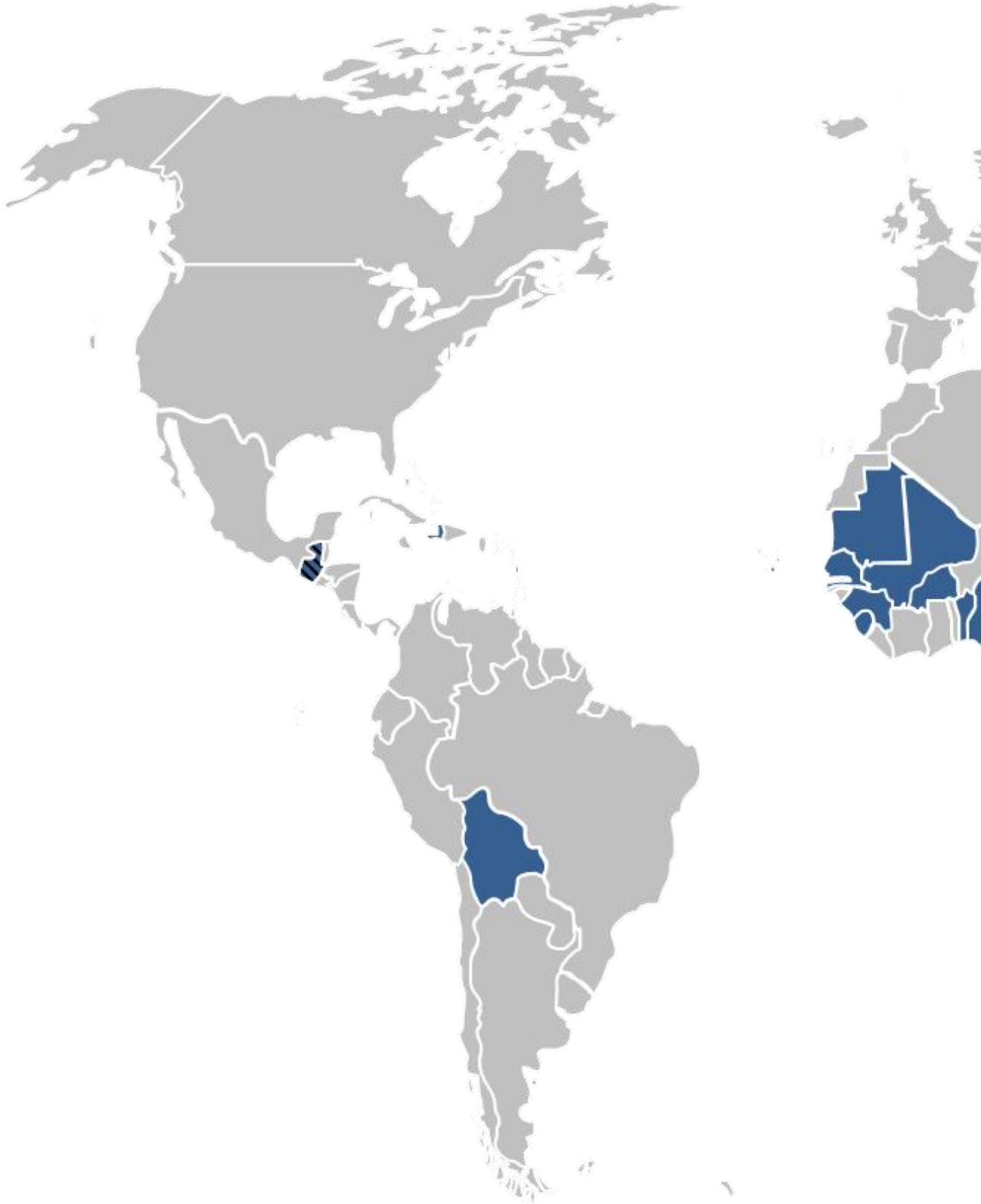
The WBG is a vital source of financial and technical assistance to developing countries through low-interest loans, credits, and grants. In Fiscal Year 2014, the World Bank's Air Transport Portfolio is around US\$1.43 billion. This included around 30 projects or project components through the International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA), as well as the International Finance Corporation (IFC)'s portfolio of lending and investment advisories in the aviation sector.

Active Projects (in millions USD)	IBRD			IDA			IFC			TOTAL		
	FY14	FY13	Change	FY14	FY13	Change	FY14	FY13	Change	FY14	FY13	Change
WBG Total Active Portfolio	109,878	103,049	6.63%	86,601	74,473	16.28%	51,735	49,617	4.27%	248,214	227,139	9.28%
WBG Active Transport Portfolio	28,676	26,842	6.84%	15,535	13,491	15.15%	3,003	2,791	7.58%	47,213	43,124	9.48%
Transport % of Total Active Portfolio	26.10%	26.05%	0.05%	17.94%	18.12%	-0.18%	5.80%	5.63%	0.18%	19.02%	18.99%	0.04%
Air Transport Active Projects	328.92	325.20	1.14%	456.79	446.78	2.24%	647.11	592.8	9.16%	1,432.82	1,364.78	4.99%
% of Total Active Portfolio	0.30%	0.32%	-0.02%	0.53%	0.60%	-0.07%	1.25%	1.19%	0.06%	0.58%	0.60%	-0.02%
% of Total Transport Portfolio	1.15%	1.21%	-0.06%	2.94%	3.31%	-0.37%	21.55%	21.24%	0.31%	3.03%	3.16%	-0.13%

Note: Excluding the Multilateral Investment Guarantee Agency (MIGA)

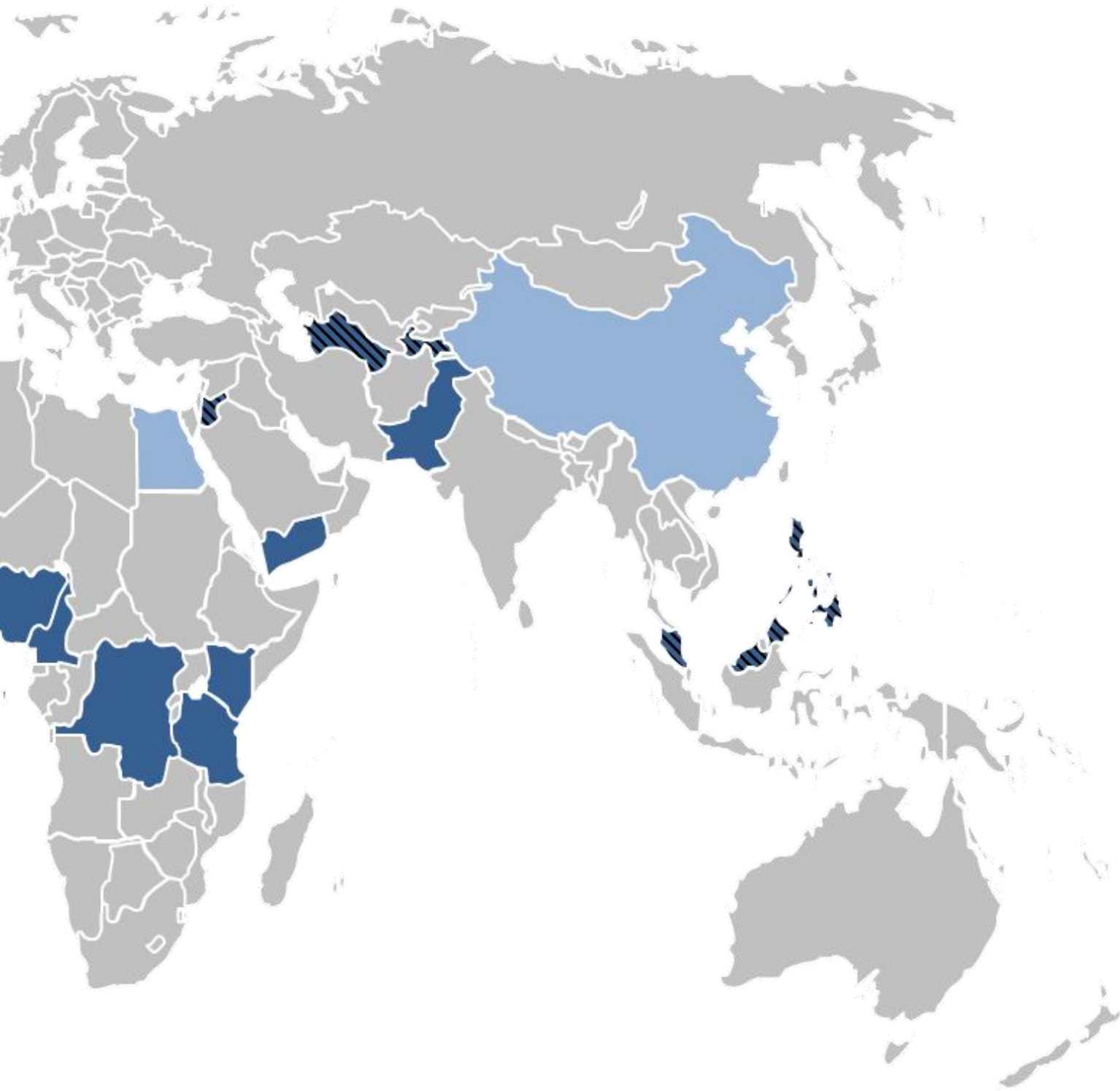
IBRD & IDA PROJECTS

Active Air Transport Projects in FY14: IBRD and IDA invest in a number of air transport projects worldwide focusing on regulatory reform, capacity building and infrastructure investments, as well as technical assistance and analytic/advisory services.



Type of Commitment

- IDA Credit or Grant
- IBRD Loan
- ▨ Non-Lending (ESW and AAA)



IBRD AND IDA PROJECTS

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Project Total	Aviation Component		
Africa	Burkina Faso	P120960	Burkina Faso Donsin Transport Infrastructure Project	Technical assistance for new Ouagadougou Airport	85.00	1.70	IDA Credit	Active
Africa	Burkina Faso, Cameroon, Guinea, Mali	P083751	West and Central Africa Air Transport Safety & Security Project	Institutional capacity building, safety and security improvements at main international airport	33.57	31.56	IDA Grant, IDA Credit	Closed
Africa	Cape Verde	P126516	Cape Verde - Transport Sector Reform Project	Institutional capacity building, technical assistance, and support of national airline	19.00	2.09	IDA Credit	Active
Africa	Democratic Republic of Congo	P153085	Goma Airport Safety Improvement Project	Improve the safety, security, and operations of Goma International Airport through infrastructure investments and capacity building.	52.00	41.60	IDA Credit	Pipeline
Africa	Democratic Republic of Congo	P092537	Multi-Modal Transport	Improve transport connectivity and support economic integration in the region	255.00	25.50	IDA Grant	Active
Africa	Democratic Republic of Congo	P129594	Multi-Modal Transport - Additional Financing	Improve transport connectivity and support economic integration in the region	180.00	9.00	IDA Grant	Active

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Project Total	Aviation Component		
Africa	Kenya	P124109	Transport Sector Support Project	Enhance aviation security and safety, and improve institutional capacity	300.00	27.00	IDA Credit	Active
Africa	Kenya	P146630	Transport Sect Support Project - Additional Financing	Enhance aviation security and safety, and improve institutional capacity	200.00	30.00	IDA Credit	Active
Africa	Kenya	P082615	Northern Corridor Transport Improvement Project	Enhance aviation security and safety, and improve institutional capacity	207.00	31.05	IDA Credit	Active
Africa	Kenya	P106200	Northern Corridor Transport Improvement Project - Additional Financing	Enhance aviation security and safety, and improve institutional capacity	253.00	48.07	IDA Credit	Active
Africa	Sierra Leone	P110968	Sierra Leone Infrastructure Development Project (Transport) - Additional Financing	Infrastructure rehabilitation at Freetown Airport	11.00	2.75	IDA Credit, IDA Grant	Closed
Africa	Sierra Leone	P078389	Sierra Leone Infrastructure Development Project (Transport)	Infrastructure rehabilitation at Freetown Airport	44.00	11.00	IDA Grant	Closed

IBRD AND IDA PROJECTS

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Project Total	Aviation Component		
Africa	Tanzania	P055120	Transport Sector Support Project	Rehabilitation and extension of regional airports	270.00	56.70	IDA Credit	Active
Africa	Tanzania	P126206	Transport Sector Support - Additional Financing	Expand capacity of regional airports; improve operational safety	59.00	57.23	IDA Credit	Active
Africa	Tanzania	P103633	Second Central Transport Corridor	Improve Zanzibar Airport facilities and build capacity	190.00	17.10	IDA Credit	Active
East Asia and Pacific	China	P123729	China - Shangrao Sanqingshan Airport Project	Improve airline connectivity and environmental sustainability of development and operation of the Shangrao Sanqingshan Airport	50.00	48.00	IBRD Loan	Active
East Asia and Pacific	Kiribati	P128938	Pacific Aviation Investment - Kiribati	Infrastructure investment, sector reform and training, and strengthening airport operations and management capacity	22.91	19.47	IDA Grant	Active
East Asia and Pacific	Kiribati	P153381	Pacific Aviation Investment - Additional Financing	Additional financing for the Kiribati Aviation Investment Project to cover a financing gap	4.00	3.40	IDA Grant	Pipeline

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Project Total	Aviation Component		
East Asia and Pacific	Pacific Islands	P145057	Pacific Aviation Safety Office Reform	Strengthen the Pacific Aviation Safety Office's technical and coordination capacity	2.15	2.15	IDA Grant	Active
East Asia and Pacific	Samoa	P143408	Samoa Aviation Investment Project	Improve operational safety and oversight	25.00	23.00	IDA Grant	Active
East Asia and Pacific	Tonga	P128939	Pacific Aviation Investment - Tonga	Infrastructure investment, sector reform and training, and strengthening airport operations and management capacity	27.21	20.95	IDA Grant	Active
East Asia and Pacific	Tonga	P096931	Tonga Transport Sector Consolidation Project	Improve safety and security compliance; provide technical assistance to CAA	5.44	2.45	IDA Grant	Active
East Asia and Pacific	Tuvalu	P128940	Pacific Aviation Investment - Tuvalu	Infrastructure investment, sector reform and training, and strengthening airport operations and management capacity	11.85	10.31	IDA Grant	Active
East Asia and Pacific	Tuvalu	P145310	Pacific Aviation Investment - Additional Financing	Infrastructure investment, sector reform and training	6.06	3.03	IDA Grant	Active

IBRD AND IDA PROJECTS

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Project Total	Aviation Component		
Latin America and Caribbean	Bolivia	P122007	National Roads and Airport Infrastructure Project	Infrastructure development; improve safety, security and operational reliability of the Rurrenabaque Airport	109.50	5.48	IDA Credit	Active
Latin America and Caribbean	Grenada, St. Vincent, the Grenadines	P117871	Regional Disaster Vulnerability Reduction Project (APL1)	Improve emergency response capability	20.92	5.02	IDA Credit	Active
Latin America and Caribbean	St. Vincent and the Grenadines	P146768	Regional Disaster Vulnerability Reduction Project - Additional Financing	Improve emergency response capability	16.60	3.32	IDA Credit	Active
Middle East and North Africa	Egypt	P101201	Cairo Airport Development Project-TB2	Build capacity of Cairo International Airport; rehabilitation and expansion of Terminal Building 2; safety and security	280.00	277.20	IBRD Loan	Active
Middle East and North Africa	Yemen	P088435	Port Cities Development II Project	Improve efficiency, and rehabilitation and extension of Mukalla Airport	35.00	5.95	IDA Grant	Active

NON-LENDING ACTIVITIES

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Aviation Component			
Global	Global	P132939	Low-Cost Carriers: Opportunities and Impact in Developing Countries	Economic Sector Work (ESW) report focusing on the opportunities for, and impact of, Low-Cost Carrier (LCC) operations	100%		ESW	Closed
Africa	Regional	P149328	Air Transport in West and Central Africa	Policy reform roadmap to develop air transport as a means to regional economic integration.	100%		AAA	Active
East Asia and Pacific	Malaysia	P144910	Malaysia National Transport Strategy	The overall objective of the Advisory Services is to develop an implementable National Transport Strategy for Malaysia.	10%		AAA	Active
East Asia and Pacific	Philippines	P145329	Philippine Transport Infrastructure Development Roadmap	To help the government in developing options and strategies to improve connectivity.	20%		AAA	Active
East Asia and Pacific	The Pacific Islands	P151715	Policy Note on Air Connectivity	Joint IFC study to analyze Chinese travel patterns and identify opportunities for Pacific; analyze subsidies and design a potential scheme for air-line operations.	100%		ESW	Active

NON-LENDING ACTIVITIES

Region	Country	Project ID Code	Project Full Name	Description of Aviation Component	WGB Commitment (Million US\$)		Product Line	Status as of End of FY2014
					Aviation Component			
Europe and Central Asia	Tajikistan	P152420	Tajikistan Multimodal Transport	To present the Government with a series of policy, institutional and investment options to tackle transport challenges.	20%		ESW	Active
Europe and Central Asia	Turkmenistan	P152386	Engagement in Transport Sector	Share international experiences and best practices of improved connectivity and its benefits to promote competitiveness of national economies.	10%		AAA	Closed
Latin America and Caribbean	Guatemala	P145325	Guatemala Transport and Logistics	Non-Lending Technical Assistance (NLTA); could include airport design study, evaluation of safety oversight, energy review, etc.	10%		AAA	Closed
Latin America and Caribbean	Latin America	P151023	LCR Connectivity and Equity: Regional Study	The study will investigate the effects of transport connectivity.	20%		AAA	Active
Middle East and North Africa	Jordan	P148494	Transport Sector TA	Airports; Assess current status and performance of the transport sector, identify challenges, and recommend priority areas for reforms and investments.	20%		AAA	Closed



An aerial photograph showing a dense urban area in the foreground, transitioning into a vast, flat, arid landscape. A major road or highway runs horizontally across the middle of the image. The sky is clear and blue. The overall scene depicts a typical African urban environment adjacent to a large, open plain.

AFRICA

Project Highlights

**BURKINO FASO, CAMEROON, GUINEA,
MALI, NIGERIA, BENIN, SENEGAL**
**West and Central Africa Safety and Security
Project (P083751, P100785, P108583)**

The regional project called “West and Central Africa Air Transport Safety and Security Project” (WCAATSSP) comprised three phases through a horizontal Adaptable Program Loan (APL). Phase I was launched in FY06 and included Burkina Faso, Cameroon, Guinea and Mali, with an overall allocation of US\$35.67 million. Phase II-A of the program was initiated in FY08, and included Nigeria’s participation in the program for an amount of US\$46.65 million. Phase II-B was effective in FY09 and included Benin and Senegal, for an amount of US\$16.57 million.

The overarching objectives of the program and each subsequent projects are to (i) improve the Civil Aviation Authority’s (CAA) compliance with International Civil Aviation Organization (ICAO) safety standards; (ii) increase CAA’s compliance with ICAO’s security standards; and (iii) enhance the main international airports’ compliance with ICAO’s security standards.

Phases II-A and II-B of the project close in FY13, and Phase I closed in FY14. Phase II-B’s outcomes was rated “Moderately Unsatisfactory” in its completion report, and Phase II-A, “Moderately satisfactory. It should be noted that significant progress was made in both Phase II-B countries, however since the outcomes indicators for the project, as outlined in the approved results framework, put more weight on ICAO audit recommendations, these could not fully capture the overall positive developments that took place as a result of the project. This observation is applicable for the two other phases of the program as well.

The most noticeable achievement of the whole program was Nigeria’s reception of a US Federal Aviation Administration (FAA) International Aviation Safety Assessments (IASA) Category 1 rating in August 2010. This means that the Nigerian Civil Aviation Authority is capable of enforcing international air safety standards set by ICAO for aircrafts

operation and maintenance, and that the country has the laws and regulations necessary to oversee air carriers in accordance with minimum international standards. As a result, Nigeria’s registered carriers, such as Arik Air, can now offer direct flights to the USA for the first time in nearly 30 years.

Burkina Faso is currently preparing itself to get similar approval, as the project helped the government to significantly improve safety and security at Ouagadougou’s international airport, and was also helpful in strengthening their CAA, which is now autonomous.

For Phase I, all the agreed activities have been completed. As scheduled, the project closed at the end of FY13 for three countries (Burkina Faso, Cameroon, and Mali) and at the end of FY14 for Guinea: this additional time allowed the Government to make progress in the setting up of its autonomous CAA. The regional project has disbursed more than 99% of its total funds.

In the four countries participating in Phase I, robust training for the CAA and airport staff, the financing of security equipment at the international airports (mainly scanning devices), the financing of various works and vehicles at the airports, has meant that patrolling is helping secure the airport area, security controls have significantly improved the way people are operating within those airports, and technical staff’s skills in safety and security oversight have drastically improved. The most noticeable impacts are: (i) the entrance of foreign air carriers serving the region. Trends indicate that carriers are more satisfied with the changes at the airports in terms of investment and operations; (ii) the increase in passengers and cargo traffic (more than two-thirds since the project began implementation at the end of 2006), and (iii) the decrease in air transport fares (although this requires further analysis and research to be validated, the project’s coordinators for the four countries unanimously agreed that this is the case).

From a regional point of view, the project team could establish close cooperation with sub-regional organizations (especially, the UEMOA, -

the Banjul Accord countries - that is, Non-UEMOA countries within ECOWAS, the ECOWAS, and the CEMAC countries), especially those who were in charge of ICAO's Cooperative Development of Operational Safety and Continued Airworthiness Program (COSCAP). As a result of more cooperation, further integration of technical standards can be reached. Moreover, the World Bank team is also working closely with ICAO at the regional level, and organized a joint mission in Guinea to reinforce their common recommendations.

Despite the positive results achieved so far, sustained commitment and effort from each country government will be required to ensure continued progress moving forward. In particular, it has been demonstrated that only strong CAAs (i.e., CAAs that are financially and administratively autonomous) can ensure efficient safety and security oversight.

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DEMOCRATIC REPUBLIC OF CONGO

Multi-Modal Transport Project

(P092537, P129594)

The Bank approved a US\$255 million IDA grant for the Multi-Modal Transport Project in the Democratic Republic of Congo (DRC) in 2010 as well as a US\$180 million additional financing IDA grant in 2013. The project's main objectives are to (i) improve transport connectivity in the DRC, (ii) to restore Société Nationale des Chemins de Fer du Congo (National Railway Company of DRC, SNCC) financial and operational viability, and (iii) to strengthen transport state-owned enterprises (SOEs) operational performance.

The project's four main components include: (1) SNCC recovery plan, (2) operational performance strengthening and improved governance of the sector, (3) international trade procedures simplification, and (4) project management.

All funds from the original grant have been fully disbursed and commitments under the additional financing are progressing. The funds dedicated to aviation finance (i) the procurement and installation of ADS-B surveillance equipment by the National Airways Management Agency/Regie des Voies Aeriennes (RVA), the organization in charge of airports, (ii) a new category II ILS/VOR/DME system for the capital's international airport Kinshasa/N'Djili (FIH), (iii) two studies on the development of airports in the country (one on freight development at FIH, and one on secondary airports), (iv) training for RVA personnel in air traffic control, airport rescue and firefighting services, and (v) the strengthening of the National Civil Aviation Agency, which is in charge of overall regulation of the sector.

Key activities related to aviation have already been implemented, albeit with some delays in procurement and reforms. The study on the cargo zone in Djili airport is complete and the study on secondary airports has started. The procurement of the navigation assistance systems (CNS/ATM and ADS-B) and of the landing assistance systems (ILS/DME and DVOR/DME) is complete. Their installation on-site is being coordinated with the construction of the new control tower in Njili Airport.

There still remain areas of improvement for the reform of governance in the aviation sector. Five of the largest airlines in DRC seeking recertification initially failed to provide the requested documentation. The government is currently refining a sector-wide strategy that will confirm some needs, such as twinning arrangements with a foreign civil aviation authority. The World Bank is coordinating with other donors, including the African Development Bank and ICAO, on this matter.

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KENYA

Transport Sector Support Project (P124109, P146630) and Northern Corridor Transport Improvement Project (P082615, P106200)

A \$300 million IDA commitment was approved in 2011 for the Transport Sector Support Project in Kenya. The project's objective is to increase the efficiency of road transport, raise aviation safety and security at Kenya's airports to international standards, and improve the institutional arrangements and capacity of the transport sector. Following the fire tragedy at Jomo Kenyatta International Airport (JKIA) in August 2013, that destroyed the only international arrival building, the Bank provided an additional credit for financing installation of temporary international arrivals terminal. The terminal will be ready for operations in March 2015.

The fire incident slightly changed the priorities in the JKIA expansion plan. A new arrival facility for Terminal 4 (renamed Terminal 1A) and reorganization of Terminal 1B; 1C and 1D for which the selection of a consultant to design the remodeling of the terminals is underway.

The aviation component of the project entails providing support to the Kenya Civil Aviation Authority (KCAA) in regulatory capacity building and through specific investments in navigation aids and training equipment. In addition, support to Kenya Airports Authority (KAA) will include provision of a new baggage-handling system at Jomo Kenyatta International Airport (JKIA), and capacity building and training of manpower in safety, security, and airports management.

As planned under the project, the Government of Kenya agreed to the restructuring of the KCAA by separating the oversight function from its service provision responsibilities; both KAA and KCAA have been given financial autonomy and now retain revenues generated. As part of this process, KCAA has increased the pay packages for key flight safety operations staff, which is critical for carrying out its oversight function. Furthermore, KAA has taken over the responsibility of screening passengers and baggage from the Kenyan police.

A consultant has been selected and is assisting in the restructuring process, with the exercise expected to be completed in December 2015. Overall, support to KAA has been delayed due to the lengthy time it has taken to conclude co-financing agreements with the French Development Agency (AFD), the main co-financier.

A fire incident in JKIA in August 2013 caused substantial damage to the passenger terminal facilities, leading to temporary suspension of operations at the airport. JKIA is a central regional hub and together with Kenya Airways, plays a major role in connecting various cities within Africa and beyond. The airport handled 300,000 tons of cargo and 6.2 million passengers in 2012, making it the seventh busiest airport in Africa.

The additional financing component of \$60 million will help finance activities to restore the capacity of the international passenger terminal destroyed in a fire at JKIA, strengthen KAA in disaster preparedness and responsiveness at Kenyan airports, and fill any unanticipated financing gaps.

Implementation on the Northern Corridor Transport Improvement Project is on track as well, despite some delays. The expansion of apron at JKIA and taxiways has increased the capacity of parking space for aircrafts by 50 percent, and expanded the capacity of the runway. The selection of a consultant to update the detailed designs on the remodeling, renovation and expansion of Units 1, 2, and 3 at JKIA is nearing completion but with modified scope of the assignment that has to take into account the impact of the fire incident. The construction of Terminal 4 (renamed T 1A) is completed except for two supply and install contracts that will be completed by April 2015. Nevertheless the terminal is in use.

Expansion and improvements at Kisumu airport is now complete, and has contributed to the stimulation of economic activities in Western Kenya. Traffic at the airport has grown from 40,000 passengers at the time of appraisal to 400,000 in the year 2013.

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SIERRA LEONE

Sierra Leone Infrastructure Development Project (Transport) (P110968, P078389)

In support of Sierra Leone's National Transport Strategy and Investment Plan (2003-2007) (SLNTP), the World Bank approved a US\$44 million credit for the Infrastructure Development Project. The project's objective was to rehabilitate selected priority roads, port, and airport facilities in Sierra Leone, while also supporting regulatory and institutional reforms to ensure effective management of the country's road, port, and airport sectors.

The focus of its aviation component was on the rehabilitation of Freetown International Airport and capacity building for its management. This included, among other things, the rehabilitation and strengthening of the runway, with upgrading of turning loops and taxiway entrances to safely accommodate modern aircraft. Through the project, the government has procured and installed power generators, an Instrument Landing System (ILS) and an Air/ Ground Communications System.

The navigation tower equipment has now been installed and is operational. Training for airport employees has been completed and the project has now been closed.

The Transport GP provided technical advice throughout the preparation of design and bidding documents for the airport infrastructure rehabilitation.

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TANZANIA

Transport Sector Support Project (P055120, P126206)

In May 2010, the Bank approved a credit of US\$270 million for the Transport Sector Support Project (TSSP) in Tanzania. In support of the Transport Sector Investment Program (TSIP), the project's goal is the rehabilitation and preparation of designs for part of the paved national road network, and the rehabilitation and/or upgrading of regional airports.

The project received additional funding (AF) of US\$59 million on 30 of June 2011. This prompted the revision of the project development objectives and expanded the scope of the aviation component. The component for airport upgrades and rehabilitation includes (i) the paving and rehabilitation of the runway at Kigoma airport (ii) the rehabilitation of the main runway at Tabora airport, as well as (iii) the extension, rehabilitation and paving of the runway and the replacement of the apron, terminal and car parking at Bukoba airport, which were signed in FY12.

The works under the Kigoma and Tabora Airports have been substantially completed and handed over to Tanzania Airports Authority (TAA) in June 2013. The paving of the runway and the construction of the apron in the Bukoba airport has also been substantially completed and provisionally accepted in December 2013, while 50% of the new terminal building construction is completed as of end of April 2014. Delays were due to essential design changes, modifications and additional requirements by TAA that were not included at the design stage. The extension, and rehabilitation and widening works of the main taxiway (taxiway C), and the construction of the new apron, taxiway D, and the new link taxiway in the Zanzibar airport are substantially completed.

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TANZANIA

Second Central Transport Corridor Project (P103633)

Approved for a credit of US\$190 million on May 27, 2008, the Second Central Transport Corridor Project (CTCP2) in Tanzania aims to support the country's economic growth by providing enhanced transport facilities that are reliable and cost effective, in line with the National Transport Policy and Strategy. This includes the establishment of the Bus Rapid Transit (BRT) system in Dar es Salaam and the rehabilitation and extension of Zanzibar airport runway.

The Zanzibar airport component (US\$ 39.3 million) was implemented successfully between April 2009 and July 2010 and was completed officially on August 3, 2010. The airport's runway was rehabilitated and extended by 560 meters, from 2462 meters to 3022 meters long. Other works included runway marking, the construction of a perimeter access road, repair and provision of new aeronautical

ground lights (AGL), and provision of a new filter drainage system on each side of the runway for the full length.

The project also financed the detailed design for rehabilitation and extension of Zanzibar airport taxiways and apron and technical assistance to the Zanzibar Ministry of Infrastructure and Communication. The apron and taxiway rehabilitation works are ongoing and are being financed under the additional financing credit of IDA's Transport Sector Support project (TSSP), with an allocation of US\$57.23 million for works and supervision. The project improved safety and customer satisfaction and has enabled an increase in the number of commercial regular flights to Zanzibar.

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An aerial photograph of a tropical island. The top portion shows a deep blue lagoon with a white sandy beach and a narrow strip of land. Below this, a large peninsula extends into the water, featuring a dense green forest and a small settlement. The bottom portion of the image shows a wide, shallow lagoon with a sandy bottom and a white sandy beach. The sky is a clear, bright blue.

EAST ASIA & PACIFIC

Project Highlights

CHINA

Shangrao Sanqingshan Airport Project (P123729)

A \$50 million IBRD commitment for the Shangrao Sanqingshan Airport Project was approved in May 2013. The overall objective of the project is to improve airline connectivity in the northeastern Jiangxi province, as well as demonstrate the environmental sustainability of the development and operation of the Shangrao Sanqingshan Airport.

The first component of the project covers the airport infrastructure development and includes the construction and installation of the following: (a) airfield, runway, taxiway, etc. (b) terminal building (c) air traffic control (d) freight facility (e) supporting infrastructure facility, including fuel storage farm, water supply, power supply, fire stations, heating, storm/water management, parking, fence, etc. (f) environmental management plan (g) land acquisition and rehabilitation (h) auxiliary facility (i) service vehicles (j) storm water reuse system and ground aircraft auxiliary power unit.

The project is making satisfactory progress 1.5 years into implementation, 38% of the loan has disbursed so far, which is ahead of the disbursement schedule. The airfield area and terminal area are under construction. The airfield construction plans to be completed by June 2015. The procurement for equipment is well coordinated with civil work progress.

The second project component finances consultant services, studies and training, including advisory services to support the Project Management Office (PMO) and Shangrao Sanqingshan Airport Company Limited (SSAC) on project coordination and monitoring activities. Other activities will include consultant services to develop airport operation model for SSAC and compliance with regulations and international practices.

The project management consulting service has been selected, and will be on board soon. To improve PMO's technical and management capacity, six trainings have been conducted since January

2014. The trainings cover the following topics: project management, contract management, procurement for Civil Works and Goods, procurement for consultancy service, and financial management. The project remains well on track to achieve its PDO.

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KIRIBATI, SAMOA, TONGA, TUVALU

Pacific Aviation Investment Program (P128939, P143408, P128938, P128940)

Based on the successful implementation of the aviation component of the Tonga Transport Sector Consolidation Project, the World Bank approved a grant of US\$ 125 Million in December 2011 for the Pacific Aviation Investment Program. The objective of the regional program including Tonga, Kiribati and Tuvalu in Phase One, Samoa in Phase Two, Vanuatu (under preparation) Phase Three, and Solomon Islands, is to improve operational safety and oversight of international air transport infrastructure in the Pacific.

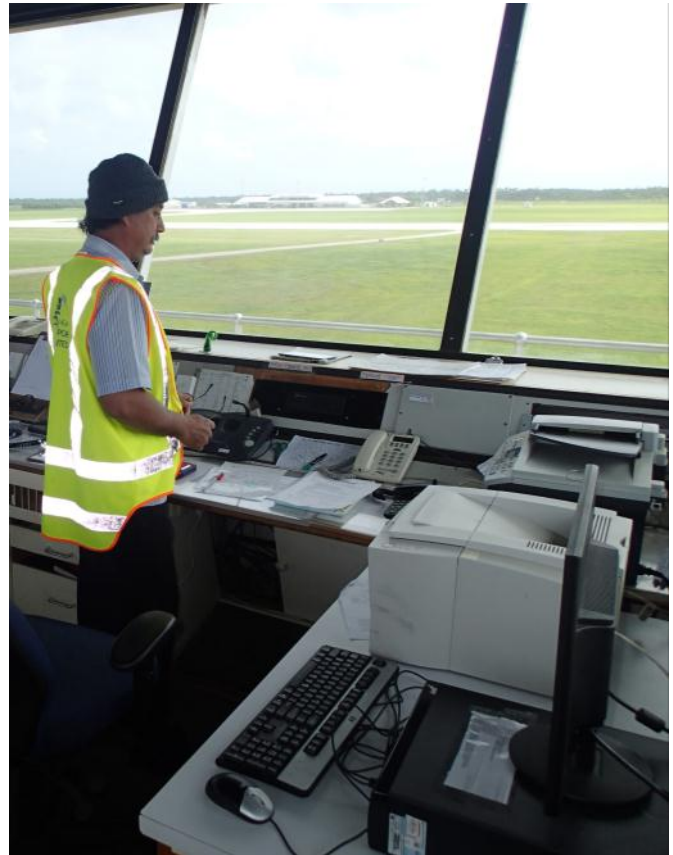
The main components of the Program include: (i) Aviation Infrastructure Improvements in order to meet ICAO standards (ii) Aviation Sector Reform supporting the Civil Aviation Departments/Authorities of each country to strengthen State's civil aviation system and to assist in the capacity and efficiency of the regional safety oversight agency, the Pacific Aviation Safety Office (PASO) (iii) Strengthening Airport Operations and Management Capacity; and (iv) Program Support and Training to the Technical and Fiduciary Services Unit (TFSU) to implement the Program and Implementing Agent (Tonga Airports Limited) to support the project as necessary.

The program made good progress over the last year, completing the designs of terminals for the Phase I countries, and completing the procurement of the runway rehabilitations and navigation aids. Civil works on these activities are-

commencing early 2015. The design work for ADS/B and the VSAT have made good progress, as have a number of the institutional strengthening activities.

The Phase one participating countries have introduced a Safety and Security Levy to cover safety and security costs incurred by the airport operator and the CAA. This also includes future fees that will be paid to the Pacific Aviation Safety Office for regional safety oversight and certification. Several regional studies are underway to improve management and operations in the sector including a review of the Flight Information Region (FIR) funded by the Public Private Investment Advisory Facility (PPIAF) and one considering the long term aviation supply and sustainability funded by Australian Aid through the Program.

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TONGA

Tonga Transport Sector Consolidation Project (P096931)

With its remote location, small size, dispersed islands setting and other geographical factors, Tonga faces many challenges in developing and maintaining sustainable internal, regional and international transport and communication linkages, all of which are crucial to the economic development and social well-being of its estimated 105,000 population. Recognizing the key role of transport in the economy and the social fabric of the country, the Government of Tonga (GoT) is committed to improving the efficiency of the sector, a process it commenced in 2004 following a request to IDA to support a joint review of Tonga's entire transport sector and formulate recommendations for improving sector performance.

The Tonga Transport Sector Review (TTSR) was completed in 2005 and many of its recommendations subsequently were adopted by GoT as policy. Actions already taken include, for example, the

creation of the Tonga Airports Ltd (TAL) in July 2007 as a corporatized airport company under the Public Enterprises Act.

Consistent with the government's Strategic Development Plan (SPD8) and the recommendations of the TTSR, GoT requested IDA grant assistance to continue to accelerate the process of reforming and consolidating its transport sector to better respond to both current and future needs. An IDA grant of \$US 5.4 million was approved in FY09 that focuses on achieving (i) stronger policy, planning, and regulatory institutions and framework, (ii) improved safety and security facilities and compliance with international safety and security standards, and (iii) greater domestic capacity for road rehabilitation and maintenance. The aviation investments are largely completed with the final two activities--a new fire station construction and terminal expansion--have commenced construction.

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PACIFIC ISLANDS

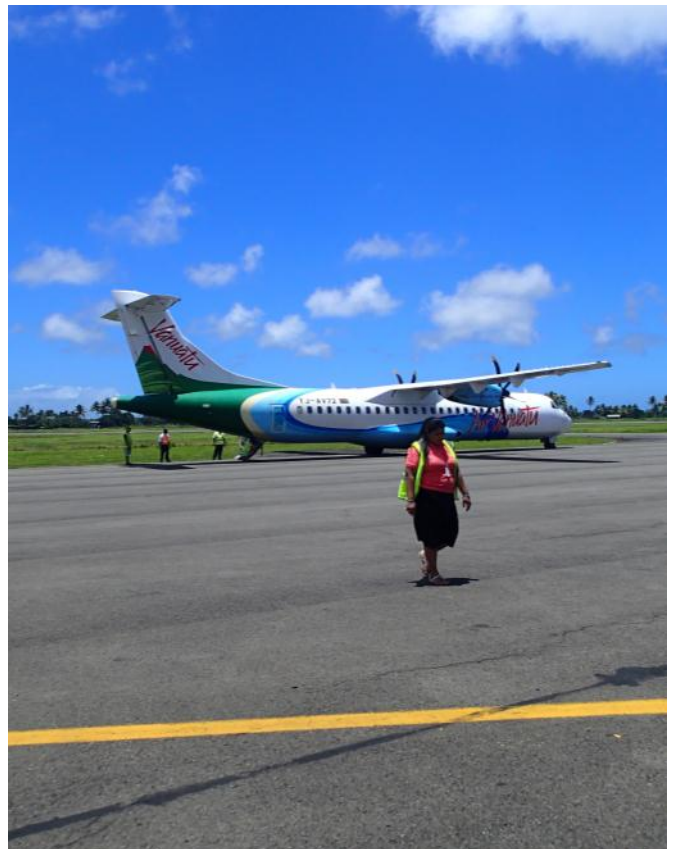
Pacific Aviation Safety Office (PASO) Reform Project (P145057)

Complementary to the investments undertaken by the Pacific Aviation Investment Program (PAIP), the World Bank approved a US\$2.15 million Regional IDA Grant in November 2013 to support the implementation of new business planning and processes at the Pacific Aviation Safety Office (PASO). Established in 2004 through the Pacific Island Civil Aviation Safety and Security Treaty, PASO supplements highly specialized expertise in aviation regulatory oversight to ten Pacific Island Countries. However, the financial viability of the organization has been elusive. By strengthening PASO's technical and coordination capacity, the project aims to ensure effective delivery of aviation safety and security oversight, and advisory services to PASO Member States.

The project is focused around three components, namely: (i) transitional management and support for PASO, comprising technical assistance activities that facilitate implementation of its newly adopted business plan; (ii) the establishment of a pool of regional aviation experts available to PASO member states to advise on aviation safety and security regulatory matters; and (iii) the establishment of appropriate quality assurance and information management systems.

Early progress in FY14 saw a new Manager/Senior Coordinator appointed, as well as the hiring of a second inspector. A senior regulatory advisor was also retained to support the development and monitoring of PASO's Annual Work Programs. Initial activities for identifying the candidacies for a regional pool of inspectors are being coordinated with the support of the PAIP Technical and Fiduciary Service Unit (TFSU) based in Tonga.

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LATIN AMERICA & CARIBBEAN

Project Highlights



BOLIVIA

National Roads and Airport Infrastructure Project (P122007)

The Bolivia National Roads and Airport Infrastructure Project supports road infrastructure improvement in the department of La Paz and the upgrading of airport infrastructure and equipment in the town of Rurrenabaque in the department of Beni.

The investment is being used for the construction of a new taxiway, apron, control tower, operations building, rescue and firefighting buildings, an access road, and a passenger terminal; and the acquisition and installation of aviation control, rescue and firefighting equipment.

The client, AASANA (Administración de Aeropuertos y Servicios Auxiliares a la Navegación Aérea), initiated procurement and consultant selection processes towards the end of 2012; however, these had to be cancelled due to unresolved resettlement issues. These resettlement issues are now being solved and it is expected that procurement can resume by end of 1st quarter of 2015.

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GRENADA

Regional Disaster Vulnerability Reduction APL1 (P117871, P146768)

Grenada's Maurice Bishop International Airport (MBIA) functions as an important regional infrastructure site in the region's emergency response capacity. It is the alternate airport for Trinidad and Tobago, Barbados, and St. Vincent and the Grenadines, and provides air traffic support in emergency situations to the island of Saint Vincent. The continued operation of the airport is therefore critical to the region as well as to Grenada. Under the Regional Disaster Vulnerability Reduction Project, critical investments will be financed at the airport in order to comply with emergency response capability operational standards, as required by the International Civil Aviation Organization (ICAO). In the absence of these investments, Grenada and the region risk a downgrading of its airport certification.

During FY14, significant progress was made in improving operational resilience and response capacity to disasters. A one-month intensive training on water rescue and basic seamanship was completed. 16 persons/staff of the MBIA were trained by a well-experienced consultant and completed the program with certificates of completion following an exam. The rescue boats as well as tractors and mowers have been successfully commissioned, tested and in use. The fire trucks have been commissioned and ready for deployment. Lastly, Grenada is in the process of completing the development of specifications for the fire detection/ alarm system for the airport. Draft designs and specifications are currently being reviewed consistent with ICAO requirements and fire safety best practices.

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HAITI

AF Infrastructure and Institutions Emergency Recovery (P130749, Initial Grant P120895)

On January 12, 2010, Haiti was shaken by a 7.0-magnitude earthquake, at a depth of 10 km, which was followed by several aftershocks, some as strong as 6.1 and 5.9 in magnitude. Global relief efforts followed immediately after the earthquake with the World Bank announcing support of US\$100 million on 13 January 2010. As the only operational entry point, Port-au-Prince (PAP) proved to be a vital in conducting humanitarian relief efforts. However, the airport was also severely damaged during the earthquake.

Major structural damage occurred to the terminal building and to the control tower. In addition, the lighting systems and power supply were insufficient for night operations, and navigational aids - (ILS/VOR) did not have a backup system. Although not severely affected by the earthquake, the airport's runway and apron also had pre-existing cracks and damages which posed potential danger to aircraft.

The Bank's board approved the Haiti Infrastructure and Institutions Emergency Recovery Project in March 2010, consisting of a US\$65 million grant. The project's objective was to support Haiti in its early recovery efforts through selected interventions aiming at helping to rebuild key institutions and infrastructure.

The project is financing the rehabilitation of key aviation infrastructure by an initial grant of US\$3 million, which includes (i) reconstruction of ground - air communications tower, (ii) repair and/or replacement of two VOR (PAP, OBN), and verification of ILS (IMG), (iii) repair of runway lights at PAP, (iv) financing of associated cost for air traffic controllers training, and (v) construction of a runway end safety area on RWY10 at PAP.

In the last fiscal year, the Government of Haiti requested an additional financing which has been prepared and approved by the Board in September

2012 for an amount of US\$35 million with US\$5 million dedicated to the air transport sector. This additional financing will support (i) governance and capacity building, (ii) equipment for air safety navigation system, (iii) continuity of operation from treatment of debris from the earthquake, (iv) roads to support development of tourism in the north, (vi) support to Ministry of PW to handle the reconstruction process. The Technical Cooperation Bureau (TCB) finalized the Haiti Site Survey Report, identifying equipment need and providing terms of reference for the various components.

An assessment of the air safety navigation system has been completed and the TORs for the purchase of priority equipment established. However, considering the important increase of tax resources available for the Air Safety Navigation Department, the Government of Haiti has decided to drop the airport activities and to proceed directly to the purchase, and proposed reallocating the funds to new program of activities. Due to this development, the need for a proposal to reallocate these funds to other activities and an evaluation of the need to restructure the project will need to be performed.

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MIDDLE EAST & NORTH AFRICA

Project Highlights



EGYPT

Cairo Airport Development Project – TB2 (P101201)

Air transport is highly strategic for Egypt's economic development because it creates significant employment and supports the country's tourism sector. In FY09, tourism accounted for 3.5% of Egypt's GDP and generated US\$10.5 billion in revenue and 12.4 million visitors. Around 80% of tourists came through Egypt's airports, and tourists represented half of the international passenger traffic at Cairo International Airport.

About twenty years ago, the Government of Egypt realized the growing importance of air transport as a driver of growth in its own right. The Government's objective therefore became to ensure that the liberalization of air transport would contribute positively to the development of the Egyptian aviation sector. Thus, Egypt has embarked on the gradual liberalization of international air services on a bilateral basis with several countries in the Middle East, Africa, and Europe. It has also signif-

icantly improved airport services through a range of capacity investments and the strengthening of airport operations.

Egypt needs to continue expanding airport infrastructure and improve airport services to meet growing demand, especially at Cairo International Airport, the main gateway to Egypt. It also needs to continue strengthening air traffic control infrastructure and air traffic management.

The Cairo Airport Development Project-TB2, approved in 2010 for an amount of US\$280 million, is primarily supporting the rehabilitation and expansion of the Terminal Building 2 (TB2) at Cairo International Airport, with a focus on enhancing the capacity and the quality of services of the airport (component 1 of the project). The component 2 consists of five studies of technical assistance on various topics.

The project's objectives are to (i) enhance the capacity and the quality of services of the Cairo International Airport, and (ii) improve the capacity-



of key stakeholders (Ministry of Civil Aviation and the Egyptian Holding Company for Airports and Air Navigation) in the strategic planning of the air transport sector.

The project's beneficiaries will be: (i) business and tourism passengers, who will benefit from better airport infrastructure and services, (ii) businesses, which will benefit from extended air transport services and a more attractive area around Cairo Airport International, and (iii) workers, who will benefit from job creation through the construction phase as well as after construction, through airport activities as well as activities of industries and services in the area of Cairo International Airport.

In FY14, the two project components continued to move forward, despite a challenging economic and political environment. The component 1, (rehabilitation and expansion of TB2) has progressed but is facing significant delay, partly due to the need to revise the design of the building. As of June 2014, completion of TB2 was expected in October 2015 with a possible slippage to January 2016, almost a year delay compared to the original schedule. Part of this delay could however be recovered with increased resources and acceleration measures.,

As of June 2014, three of the five studies forming the component 2 were completed, namely a review of air transport policy of Egypt and other strategic options, a development strategy of air traffic control infrastructure and management, and an analysis of the fee and tax structure of the air transport sector. Another study on the spatial planning of Cairo's airport area was nearing completion. Finally, the procurement of the last study (a review of the Civil Aviation Authority's compliance with ICAO standards and recommended practices concerning regulatory oversight of safety and security) has been delayed. It might be replaced by a safety peer review carried out by Airports Council International and funded by the project.

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YEMEN

Port Cities Development II Project (P088435)

The project became effect on August 2010, and following restructuring, the primary development objective to improve the capacity of key transport infrastructure in the port cities of Mukalla and Hodeidah. The aviation component seeks to gain time savings for passengers landing and departing at Mukalla International Airport.

Progress of implementation has started to pick up since restructuring and of Dec. 2014, and works are scheduled to be completed by April 2015.

As with the rest of the region, there is an increasing trend of political uncertainty and insecurity in the country. Suspensions of missions to Yemen are updated regularly. The risks on the security and political fronts could continuously hamper project implementation.

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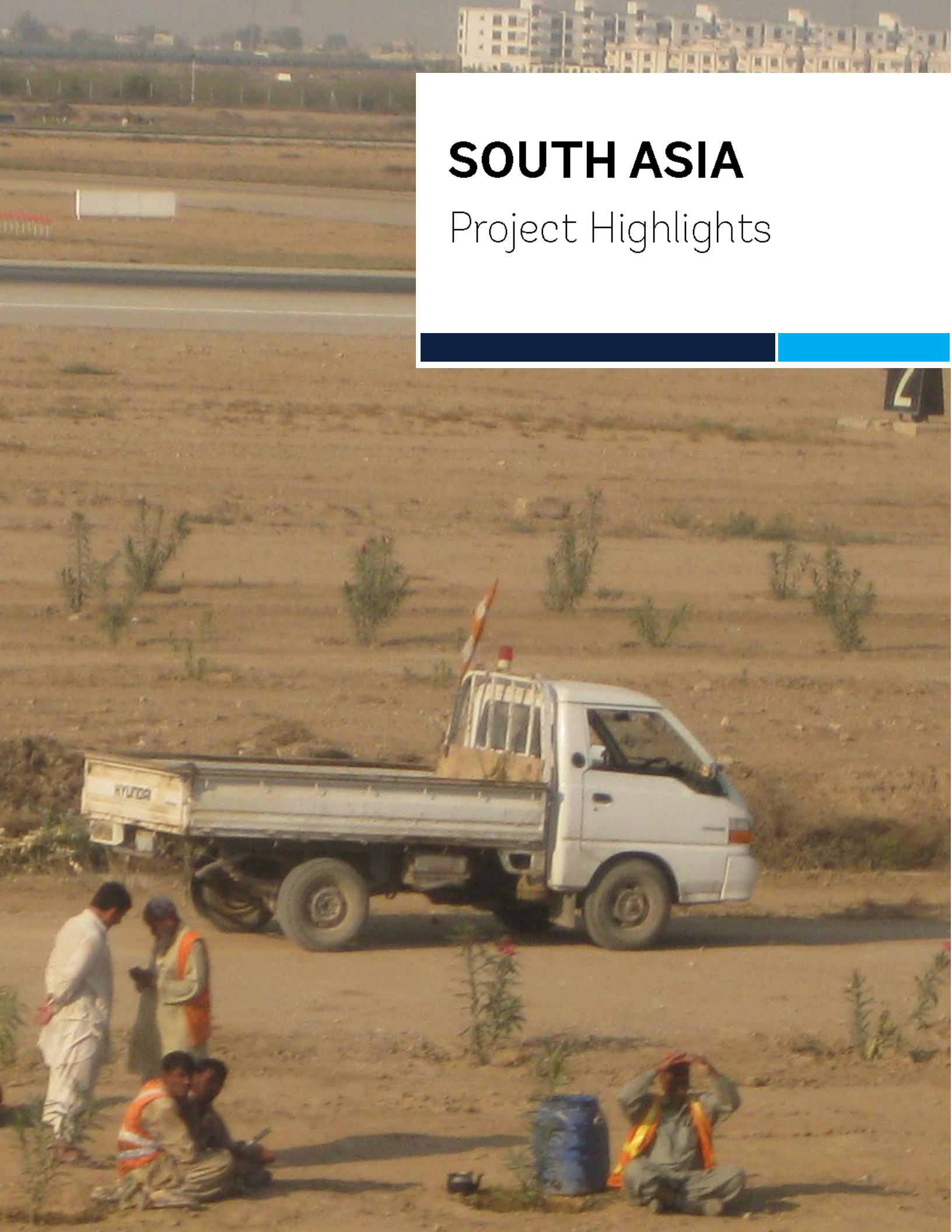


هوليدى ان
MUKALLA
مكلا



SOUTH ASIA

Project Highlights



PAKISTAN

Trade and Transport Facilitation II Project (P101684)

In support of its National Trade Corridor Improvement Program (NTCIP), the Government of Pakistan requested technical assistance lending from the World Bank in 2006. The objective of the project is to (i) support entities directly concerned with the implementation of NTCIP and establish a sustainable monitoring system including communications, (ii) support implementation process of NTCIP through analytical work on trade procedures and supporting infrastructure and services needs (including roads, railways, ports and shipping, aviation, and energy sub-sectors), and (iii) further strengthen participation of the private sector aiming to internalize public-private collaboration on trade facilitation through a dedicated project component.

The aviation component of the project focuses on the development of Air Transport Master Plan for

Pakistan and an air safety improvement component that aims to improve operational safety by financing several GNSS-based instrument approaches, and by assessing the regulatory oversight by the CAA.

An evaluation of compliance with ICAO Standards and Recommended Practices was completed as part of the project. The purpose was to review and identify discrepancies with the Standards and Recommended Practices to provide an action plan to have these discrepancies corrected; to improve CAA's safety oversight system. CAA performed well in the ICAO Audit held in 2011 and achieved 82% compliance (the world average is 65%).

However overall implementation was challenged by a lack of commitment at the higher political level and implementing agencies. The project closed on December 31, 2013 with partial cancellation of the IDA funds to be used for reallocation to other programs in the country.



IFC PROJECTS

IFC Air Transport Projects: The IFC provides financing to private sector companies and has traditionally financed air carriers and airport infrastructure projects.



IFC Commitment

- US\$1 to \$10 Million
- US\$10 to \$30 Million
- US\$30 to \$50 Million
- > US\$50 Million



IFC PROJECTS

COUNTRY	PROJECT CODE	DESCRIPTION	AMOUNT (USD)	IFC'S EXPOSURE (as of End-of-FY2014) USD*	TYPE
Africa (Mali, Burkina Faso, Uganda)	27048	AKFED Aviation: General purpose loan to a regional alliance of African Airlines	\$25 million	\$25 million	A Loan
Cambodia	21363	Cambodia Airports: Privatization of Phnom Penh International Airport	\$10 million	\$1.1 million	A Loan
Cambodia	25332	Cambodia Airports II: Privatization of Phnom Penh International Airport – required capital and investments for expansion	Up to \$17.5 million	\$3.8 million	IFC A Loan up to \$7.5 million, IFC standby up to \$10 million
Cote D'Ivoire	32061	IAS: Acquisition of up to 3 secondhand Dauphin N3 helicopters to provide transport services to leading oil and gas exploration and production companies	\$7 million	\$6.4 million	A Loan
Dominican Republic	27883	Punta Cana Airport: Capacity expansion	\$20 million	\$9.5 million	A Loan

IFC PROJECTS

COUNTRY	PROJECT CODE	DESCRIPTION	AMOUNT (USD)	IFC'S EXPOSURE (as of End-of-FY2014) USD*	TYPE
Jamaica	11353, 24676, 24306, 26202, 31658	Montego Bay Airport: Operation and expansion of Sangster International Airport; improvement of the existing terminal and the construction of a new concourse (11353)	\$20 million (11353)	\$4.5 million (11353)	A and B Loans (11353)
		MBJ Phase 1 Swap: The proposed project is to provide a USD interest rate swap to hedge the interest rate volatility inherent in the floating rate IFC Phase 1 loans (24676)	\$1.2 million (24676)	\$0.9 million (24676)	Client Risk Management – Intermediation (24676)
		MBJ Phase II - Expansion and redevelopment of Sangster International Airport (24306)	\$42 million; \$20 million for IFC's own account (24306)	\$14.7 million (24306)	A and B loans (24306)
		MBJ (CUTE): Financing for new Common Use Terminal Equipment (CUTE) and Baggage Handling and Screening (BHS) systems for Sangster Int'l Airport. Project closed on 06/12/2013 (26202)	\$5 million (26202)	Project closed	A Loan (26202)
		MBJ ROS: The proposed project consists of the runway overlay of Sangster International Airport (SIA) and other safety investments (31658)	\$7.5 million (31658)	\$7.5 million (31658)	A and B loans (31658)

IFC PROJECTS

COUNTRY	PROJECT CODE	DESCRIPTION	AMOUNT (USD)	IFC'S EXPOSURE (as of End-of-FY2014) USD*	TYPE
Jordan	26182, 26864, 26685	Queen Alia International Airport: Rehabilitation of both airside and landside facilities	\$295 million; \$120 million for IFC's own account	\$115.9 million, \$20.6 million, \$18.9 million	IFC A Loan \$80 million and Syndicated B loan \$175 million IFC C \$40 million Cross Currency Swaps (26864, 26685)
Kenya	31650	KQ Airways: Expansion program consisting of the acquisition of 9 Boeing 787 Dreamliner aircrafts and 10 Embraer 190 aircrafts	\$25 million	\$17 million	Equity
Nepal	27247, 31446	Buddha Air: Purchase of small aircraft and long term working capital requirements Buddha Air II: Financing to BAPL (Buddha Air Private Limited) to purchase its second ATR-72 aircraft. Investment fully repaid	\$10 million, \$6.9 million	\$5.2 million (27247)	IFC A loan
Peru	24489	Lima Airports Partnership: Financial restructuring and assistance in conjunction with Fraport	\$20 million	\$16.8 million	Equity

IFC PROJECTS

COUNTRY	PROJECT CODE	DESCRIPTION	AMOUNT (USD)	IFC'S EXPOSURE (as of End-of-FY2014) USD*	TYPE
Russian Federation	28218	Pulkovo Airport: Financing to expand, develop, operate and maintain airport	\$236 million; \$101.3 million for IFC's own account	\$95.6 million	A & B Loans
Tunisia	26913, 28076	TAV Tunisia: Construction of a new airport in Enfidha, with an initial capacity of 7 million passengers per year, and rehabilitation of the airport in Monastir	\$253 million; \$184 million for IFC's own account	\$132.3 million, \$16.6 million	IFC A Loan, Subordinated Loan, Syndicated B Loan, Equity
NEW COMMITMENTS IN FY 14:					
Africa Region	32546	The Project will enable ASECNA to enhance member countries' airport facilities and to reinforce air traffic security in the region.	\$36.03 million	37.6	A Loan
Jordan	34536	Queen Alia II: Stage 2 of expansion and rehabilitation of QAIA consisting of demolishing of the old terminals and an extension of the piers with additional contact gates	\$93.8 million; 21.2 for IFC's own account	\$21.2 million	IFC A Loan, Syndicated B Loan and Parallel Loan
Croatia	31969, 34380,	Zagreb Airport: Construction and operation of a new passenger terminal and related infrastructure at Zagreb Airport and the existing facilities.	\$72.65 million for IFC's own account (31969)	\$73.4 million (31969)	A Loan, Equity, and C Loan (31969)
		Zagreb Air Hedge: Interest Rate Swap	\$1.2 million for IFC's own account (34380)	\$5.9 million (34380)	Client Risk Management (34380)

IFC: PROJECT HIGHLIGHTS

AFRICA: AKFED Aviation

The Aga Khan Fund for Economic Development (“AKFED”), through its Aviation Services division, is currently expanding its activities in both East and West Africa. The aim of the division is to assist in maintaining the critical aviation infrastructure in support of economic development and to provide much needed regional airline services in Africa. IFC’s involvement with the organization includes a corporate loan of up to \$25 million to AKFED for on-lending to its three airlines: Air Burkina, Air Mali and Air Uganda. This allows AKFED to consolidate all of the division’s airlines and aviation activities and optimize routing, synergies and overall effectiveness across the group’s airline operations.

Loan proceeds will be used to fund fleet acquisition cost (introduction of 9 refurbished MD-87 and 2 MD-83 aircraft) and other airline development costs including training of crews and engineers, purchase of spare parts, and improving maintenance facilities.

The project is expected to promote inter-regional and international trade in the region. Additionally, the project is also expected to provide a boost to tourism. Continued trade and economic growth in Africa is contingent on further investments and improvements in regional transport infrastructure and services. The division’s operation will fill the service gap that exists today and will result in increased frequencies for existing destinations as well as the addition of new destinations, better passenger service and improved efficiency and safety. Such improvements will increase the connectivity, competitiveness and attractiveness of these countries’ economies. Moreover, the project will support regional integration by assisting the development and expansion of a group of regional airlines.

SUB-SAHARAN AFRICA: ASECNA

The Agence pour la Securite de la Navigation Aerienne en Afrique et a Madagascar (ASECNA) is a multi-state governmental agency. It was created in 1959 and is composed of 18 member countries (Benin, Guinea Bissau, Burkina Faso, Cameroon, Central African Republic, Chad, Comoros, Congo, Cote d’Ivoire, Equatorial Guinea, France, Gabon, Madagascar, Mali, Mauritania, Niger, Senegal, and Togo).

ASECNA is responsible for the design, implementation and management of facilities and services related to the transmission of messages and traffic information, guiding aircrafts, air traffic control, forecasting and reporting meteorological information, for traffic route, approach and landing at airports in African members countries. It is also in charge of the maintenance of all facilities required for the implementation of these services, including the management of an airspace covering 16 million square km, with a total of 32 airports.

IFC investment consist of an A loan of USD\$38.98 million aimed at financing a list of specific infrastructure refurbishment including purchase and installation of back-up power equipment in a number of member countries in Africa. The loan is designed to promote regional and integration and improve air space management facilities, infrastructure, and communications thus enhancing member countries’ safety in the air transportation sector.

COTE D'IVOIRE: International Aircraft Services

The project, which was approved in March 2013, provides financing of \$7 million to International Aircraft Services (IAS) for the acquisition of up to three secondhand Dauphin N3 helicopters by IAS. The helicopters will be used to provide transport services to leading oil and gas exploration and production companies in Cote d'Ivoire and the Western African region. The project will enable IAS to modernize its fleet with newer helicopters to meet its client needs.

IAS is an aviation operator and maintenance company created in 2002 and registered with the Ivory Coast Civil Aviation Authority. It provides mostly helicopter transport services to the oil and gas industry in Cote d'Ivoire and to the mining industry in West Africa. The company currently owns 13 helicopters and employs 25 pilots. IAS is based in Felix Houphouet-Boigny International Airport, which is approximately 16 km south east of Abidjan.

The expected development impact will be developing local know-how, and support the development of exploration and production of natural gas activities by providing reasonably priced transportation services. The project also hopes to create a demonstration effect by providing financing to a company in a post-conflict country to pave the way for more investments in the future.

CROATIA: Zagreb International Airport

The IFC is supporting the development of a terminal at Zagreb International Airport as part of a Public Private Partnership (PPP). The new USD\$450 million terminal, built by a consortium supported by IFC, is expected to contribute to economic growth and tourist activity. Tourism is a major driver of employment in Croatia, and improved infrastructure will develop the sector and boost GDP. IFC is committing as much as USD\$73 million to the project, including a loan of up to USD\$47 million and an equity investment of—



nearly USD\$26 million. The concession includes financing, design, and construction of the terminal, along with airport operation until 2042.

The new terminal will be 65,000 square meters and is expected to welcome 5 million travelers per year when it opens in 2017, compared to the current capacity of 2 million, a 150% capacity increase. An average of 400 new jobs are expected to be created during construction, and up to 700 at peak. For the first time in Croatia, private firms involved in a transport concession project have assumed passenger volume risks, enabling the country to upgrade essential infrastructure without adding a burden to state finances.

KENYA: Kenya Airways Expansion Plan

Kenya Airways Ltd. (KQ) the national flag carrier of Kenya and the third largest airline in Sub-Saharan Africa (in terms of seat capacity offered) is in the midst of implementing a strategic fleet and network expansion plan. It is focused on growing its passenger network and diversifying its fleet to match the network needs, as well as launching a dedicated freighter division. Having reached a critical mass and achieved a solid financial position, KQ finds itself well positioned to capitalize on the growth prospects and opportunities that the African region and the international market present.

KQ's strategic intent is to establish its brand and its presence in the most important intra-African markets as well as become a significant player in long haul origin-destination city pairs that are expected to grow over the next few years. To implement the project, the company has placed firm orders to aircraft manufacturers in connection with the acquisition of nine Boeing 787 Dreamliner aircraft and ten Embraer 190 aircraft.

IFC's support of Kenya Airways expansion plan is expected to have significant development impact. At the regional level of Sub Saharan Africa, the launch of the freighter division coupled with the opening of new intra-Africa destinations will con-

tribute to markets integration and will reduce the transactional costs of trade, an aspect that is extremely important to promote the economic development of the SSA economies.

KQ's entry into new international markets will also promote competition as well as provide a key transportation link between growing economies in the Middle East and Northern Africa region and Asia promoting international trade, South-South Investments and tourism to and from Africa.

MEXICO: Vuela Aircraft Financing

Vuela (branded Volaris) commenced operations on 13 March 2006. It initially operated five routes with four aircraft throughout Mexico from its base at Aeropuerto Internacional de Toluca but has plans to grow significantly over the next decade, with a planned fleet of 90 aircraft including Airbus 319, A320 and A320 Neo.

Vuela will provide substantially discounted fares in a market historically marked by limited competition and high fares. This is expected to help stimulate demand and make air transportation more accessible for a larger share of the Mexican population, promote connectivity, and economic growth.

The IFC investment is an IFC revolving credit line of \$30 million for the financing of aircraft pre delivery payments and a \$10 million loan to Controladora Vuela Compañía de Aviación, S.A de C.V. (Controladora) with Concesionaria Vuela Compañía de Aviación, S.A de C.V. as the guarantor (Vuela or the company), a newly established low cost airline, branded as Volaris.



NEPAL: Buddha Air II

Air connectivity is a key requirement in Nepal given its difficult terrain and poor road network. Domestic airlines are needed to provide reliable and safe air services. With tourist arrivals in Nepal growing at 12% annually since 2006, and a greater focus on tourism revenues with GDP growing at ~4.5% p.a., the requirement for domestic tourist airline seats is expected to grow even further.

Buddha Air Private Limited is a closely held private limited company providing air services since 1997. BAPL currently has 357 seats across a fleet of three Beechcrafts (18 seats), three ATR-42s (47 seats) and two ATR-72 (72 seats). The expansion to its current fleet had been partially financed by an IFC corporate loan of \$US10 Million in FY09. BAPL had a 42% market share by passengers in the first half of 2011, and was the first one to bring in larger 45 seater turbo prop aircraft for domestic

routes in Nepal and also the first to fly to Bhutan and to towns across the Indian border.

The project Buddha Air II addresses two pillars of CSA strategy; (i) by facilitating passenger and cargo transport between India and Nepal it supports regional integration; (ii) by enhancing transport and access across Nepal at reasonable cost, it supports inclusion in Nepal. The project also fits well with the FY11-13 WBG ISN which highlights connectivity and private sector growth.

IFC is providing financing of \$6.9 million to BAPL for acquisition of a second ATR-72 aircraft which BAPL is currently operating on a lease basis. IFC's will also help the Company enhance safety standards and undergo IATA IOSA audit.

Contact persons for all IFC projects is Harsh Gupta at hgupta@ifc.org.

IFC: AIR TRANSPORT ADVISORY MANDATES

The Infrastructure Advisory Services Department of the IFC provides advisory assistance to governments on structuring and implementing (tendering) Public-Private-Partnerships (PPPs) in infrastructure. IFC has undertaken more than 100 advisory transactions in over 67 countries over the last 20 years. IFC/World Bank's reputation for competence, transparency, and fairness allows it to play the role of neutral partner to balance each party's interest, thus reassuring foreign investors, local partners, other creditors, and government authorities

The two main domains in air transportation advisory services are private sector participation in airports and air carriers.

1) IFC Public-Private Partnerships (PPP) Advisory Mandates in Airports

Only a fraction of the world's 4,000 commercial airports are managed or owned by private sector entities. However, as passengers carried by air transport has neared three billion in 2012, and that same year, 35% of all merchandise and goods (in value) were air freighted – Public-Private-Partnerships (PPPs) in airport infrastructure will grow to meet investment and required service standards. Airport PPPs are useful approaches to meet both private and public sector objectives.

Of the various airport PPP models available, experience shows that concessions and full divestiture are most effective:

- Concession Contracts (BOT, BOO, BOOT, BTO, etc.): State retains ownership of airport but transfers investment as well as operations and management responsibilities to the private sector
- Full Divestiture: Ownership, operations, and investment responsibilities are fully transferred to the private sector.
- In certain cases, a blend of first-phase BOT followed by public offering can maximize benefits

In certain cases, a blend of first-phase BOT followed by public offering can maximize benefits.

2) IFC Public-Private Partnerships (PPP) Advisory Mandates in Airlines

As the airline industry has proceeded along this privatization path over the last 20 years, IFC has participated in nearly a dozen airline transactions. Unfortunately, many have proved to be difficult projects due to important sector-specific structural reasons:

- Fixed-cost structure: Airlines tend to build up a legacy-costs base (staff and fleet) that is difficult for a new owner to manage. In addition, fuel costs are beyond management's control. During the recent oil price spike, they accounted for as much as 30% of the cost base.
- Price-sensitive product: Demand for travel is highly elastic, especially in tourist markets. In recessions, people forgo vacations for other consumer goods. Conversely, price reductions increase passenger numbers dramatically.
- Complicated demand chain: Customers often purchase tickets through travel agents, frequently in a package with hotel accommodations. Since airlines rely on these other actors for their sales, if there are bottlenecks elsewhere the aviation sector suffers.
- Overregulation: Bilateral agreements between governments, still prevalent in many parts of the world, prevent competition from functioning normally. Open skies are being adopted, but not in all countries.

3) IFC Air Transportation Experience

When undertaking a transaction advisory mandate, IFC provides a one-stop solution to governments covering all aspects of the proposed transaction. One of the distinguishing features of IFC's value addition is its ability to balance private and public sector interests and take into account sustainable long term economic and social effects.

Selected IFC Advisory Mandates in Airports

PROJECT NAME	COUNTRY	YEAR	MANDATE/RESULT
Jeddah Airport	Saudi Arabia	2014-ongoing	Project structuring being finalized
Taif Airport	Saudi Arabia	2014-ongoing	Initial due diligence is ongoing
Brazilian Airports	Brazil	2014	Galeao and Confins Airports successfully awarded to Changi and Zurich Airport led consortiums respectively
Saint Lucia Airport	Saint Lucia	2013-ongoing	Project structuring being finalized
Madinah Airport	Saudi Arabia	2012	Successfully awarded to TAV, Saudi Oger, Al Rajhi consortium
Dili Airport	East Timor	2012-ongoing	Project structuring finalized
Jamaica Airports	Jamaica	2011-ongoing	RFQ process initiated
Queen Alia Airport	Jordan	2007	Successfully awarded to Aéroports de Paris, ADIC, J&P, Noor consortium
Hajj Terminal	Saudi Arabia	2007	Successfully awarded to Saudi Bin Laden Group, Aéroports de Paris consortium
Abuja Airport	Nigeria	2006	Successfully awarded to Abuja Gateway consortium (Airport Authority and equity partners)

Selected IFC Advisory Mandates in Airlines

PROJECT NAME	COUNTRY	YEAR	MANDATE/RESULT
Air Jamaica	Jamaica	2009	Awarded to Caribbean Airlines
Drukair	Bhutan	2008	Strategic analysis
JAT	Yugoslavia	2006	Strategic analysis
Polynesian Airlines	Samoa	2005	49% sold to Virgin Blue
Cameroon Airlines	Cameroon	2005	Awarded but cancelled by Government
Air Tanzania	Tanzania	2002	49% sold to SAA
Kenya Airways	Kenya	1996	76% sold to KLM, financial investors

PROJECT EXAMPLE: BRAZIL

Galeão and Confins Airports

Building on a previously completed round of concessions from 2011, the Brazilian Development Bank (BNDES) approached IFC in mid-2012 to assist with the second round of airport concessions, covering Galeão and Confins airports, in cooperation with Estruturadora Brasileira de Projetos (EBP). The National Aviation Secretary (SAC) authorized EBP to develop the financial, engineering, and environmental studies necessary for the two airport projects. In order to undertake these activities, EBP and IFC signed a Cooperation Agreement, with IFC focusing principally on the technical workstream. Both projects closed in April 2014.

Galeão International Airport is located in the southeast region of Brazil; the airport serves as a major air transportation hub for the country and region. The Galeão project was structured as a 25-year concession, through which the operation and management of assets is transferred to the concessionaire. The concessionaire is responsible for providing all necessary investments, including civil works, to meet growing demand. Galeão airport was awarded to the Aeroportos do Futuro consortium, composed of Odebrecht, a leading Brazilian

engineering and construction company, and Changi Airport Group. The winning bid was US\$7.9bn, and US\$2bn will be invested over the concession term.

Confins International Airport, is the main commercial airport in the Belo Horizonte region, with a population of approximately six million people. The project was structured as a 30-year concession, through which the O&M of assets is transferred to the concessionaire. The concessionaire has the responsibility to provide all the necessary investments, including civil works, to meet growing demand. Confins was awarded to the Aerobrasil consortium, composed by CCR/SA, a large Brazilian engineering and construction company, and Flughafen Zurich AG. The winning bid was US\$750m, and US\$1.2bn will be invested over the concession term.

Contact persons for all IFC air transport advisory services projects are:

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Guarantees provided by the Multilateral Investment Guarantee Agency (MIGA) cover projects in a broad range of sectors, with projects in infrastructure accounting for the largest share (41%) of the agency's portfolio. Infrastructure development is an important priority for MIGA given the estimated need for US\$230 billion a year solely for new investment (maintenance needs are of a similar magnitude) to deal with rapidly growing urban centers and underserved rural populations in developing countries. Two recent example projects of MIGA guarantees include Jorge Chavez International Airport in Peru and New Airport in Ecuador.

EQUADOR: New Airport at Quito

MIGA issued three guarantees of US\$32.8 million, US\$16.4 million, and US\$16.4 million to the Aecon Group INC. of Canada, the HAS Development Corporation of the United States, and ADC Management Ltd. of the United Kingdom for their respective shareholder loans to Corporacion Quiport of Ecuador. In addition, MIGA also issued guarantees of US\$450,000, US\$225,000, and US\$225,000 for the investors' respective equity investments in the project enterprise.

The Aecon Group and HAS Development Corporation have coverage for a period of 14 years for their shareholder loans, while the remaining four guarantees are for a period of 15 years. Each guarantee provides coverage against the risks of Transfer Restriction, War and Civil Disturbance, and Breach of Contract.

The project involves the construction of a new airport near Puembo, 24 km outside the capital city of Quito. The project will be a key economic driver for sustainable economic development of the metropolitan region of Quito. The airport replaces the

existing airport in the city of Quito, which suffers from safety deficiencies as well as capacity constraints.

PERU: Jorge Chavez International Airport (JCIA)

MIGA provided Fraport AG, of Germany with a guarantee of US\$11.5 million to cover its US\$12.8 million counter guarantee for a performance bond posted for the privatization of Lima's airport, Jorge Chavez International Airport (JCIA). The coverage is against the risk of expropriation (the wrongful call of the performance bond), and extends for eight years.

The Peruvian government views airport privatization as central to its efforts to expand employment opportunities, and create a modern transportation facility to serve as the country's gateway to the world. It will also enhance and expand tourism, another key government goal.

During the first four years of the concession, the consortium is expected to invest over US\$130 million in new infrastructure, including upgrades to the current terminal, construction of a new passenger concourse, expansion and addition of new aircraft aprons and taxiways, and creation of a hotel and retail center within the existing airport perimeter.

Contact person for all MIGA guarantees is Margaret Walsh at mwalsh@worldbank.org.

ECONOMIC SECTOR WORK

Low-Cost Carriers

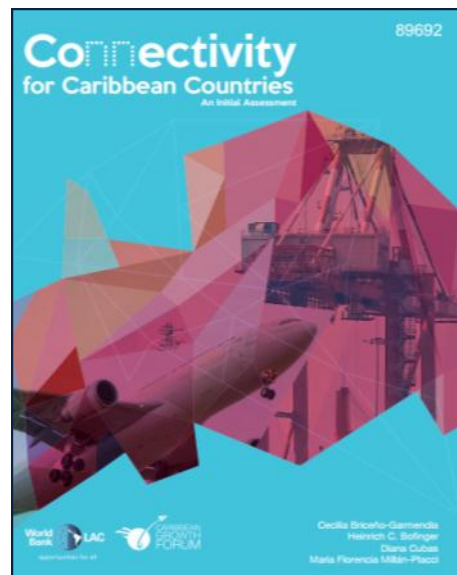
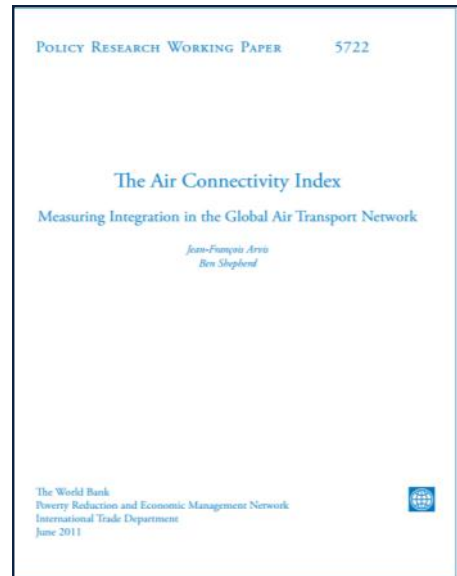
The publication “Ready for Takeoff? The Potential for Low-Cost Carriers in Developing Countries”, which was the result of Economic Sector Work was released in Fiscal Year 2014.

The emergence of Low-Cost Carriers (LCCs) has been a major catalyst for the development of the aviation industry. LCCs have revolutionized the way we travel, brought affordable air transport within economic reach of large segments of the population, and massively expanded the market for air travel.

Although some generalizations prevail, there is no one LCC business model. Many airlines are classified as low-cost carriers, but to what extent do these airlines actually adhere to the fundamentals of low-cost strategies? How does this breed of carriers impact the aviation market? Is the model transferable to other markets? Could LCCs be the key trigger for the development of air transport in many developing countries that suffer from limited connectivity and high airfares?

This book seeks to provide some clarity on the question of whether LCCs can be a key driver in fostering aviation in many developing countries. It is available for download here: <https://openknowledge.worldbank.org/bitstream/handle/10986/20191/905860PUB0Box3014648028290Sep102014.pdf?sequence=1>

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 Charles E. Schlumberger at cschlumberger@worldbank.org and
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FEATURING: OTHER RESEARCH

Connectivity for Caribbean Countries

Their vital relation with the Caribbean Sea is a defining factor for the many cultures, languages and countries that co-exist in the Caribbean. This factor acts as both the most important vehicle and as their most challenging obstacle to connect with the world, and represents the starting point for every single discussion around Caribbean states: the fact that they are sea-locked countries (for most), small economies, with a high level of vulnerability to natural disasters and a geographic location that calls for regional cooperation and integration.

Two of these - the fact that they are sea-locked and their location in the Caribbean - pose critical and unchangeable barriers to maximizing the development of their infrastructure and connectivity. In consequence, exchanges of goods and services with the rest of the world are limited to air and maritime transport modes, logistics costs are generally higher, and they face a disproportionate risk disruption due to natural disasters.

This all translates into a cost premium for developing both infrastructure and transport services, regardless of the degree of efficiency of the investment decision process. In the Caribbean Growth Forum (GCF), economic growth and competitiveness of member countries are invariably intertwined with air and maritime transportation.

Author(s): Cecilia Briceno-Garmendia, Heinrich C. Bofinger, Diana Cubas, Maria Florencia Millan-Placci

Download here: <https://openknowledge.worldbank.org/handle/10986/20080>

The Air Connectivity Index: Measuring Integration in the Global Air Transport Network

Important and innovative research on air transport issues is being undertaken across the World Bank Group. For example, colleagues from the Trade and Competitiveness Global Practice (Jean-François Arvis and Ben Shepherd) have developed an Air Connectivity Index.

The authors construct a new measure of connectivity in the global air transport network. It is grounded in network analysis methods, and is based on a gravity-like model that is familiar from the international trade and regional science literatures. It is a global measure of connectivity, in the sense that it captures the full range of interactions among all network nodes, even when there is no direct flight connection between them.

Their findings reveal that the most well connected countries are the United States, Canada, and Germany. The measure of connectivity is closely correlated with important economic variables, such as the degree of liberalization of air transport markets, and the extent of participation in international production networks. It provides a strong basis for future research in areas such as air and maritime transport, as well as international trade.

Author(s): Jean-François Arvis, Ben Shepherd

Download here: <https://openknowledge.worldbank.org/handle/10986/3486>

AIR CARRIER ADVISORY SYSTEM: For World Bank Staff Air Travel

The Bank has maintained an evaluation tool for assessing risks associated with air travel for mission travel since 2008. The air carrier advisory system developed by the Bank's General Services Department and Air Transport team was launched in FY2011. Airline ratings/risk are based on the following criteria:

Risk Criteria:

1. Serious accident in the last 3 years (defined as any incident that results in injury or death of a passenger, or substantial damage to the aircraft)
2. Registered in a country with poor oversight (based on ICAO safety audit)
3. A flag of convenience airline (an airline that is registered and maintained in a country other than where it operates)

4. Use of aircraft over 20 years old

Overall there were 193,843 flights booked by American Express for Bank staff in Fiscal Year 2014. The majority of flights booked were with airlines considered to be "Good to fly". Note: This data does not capture trips arranged in the regions.

Travelers should be aware that surface transportation may not be possible or may represent more risk than air travel in some client countries. The Air Transport team will continue to provide ongoing assessments and safety advice for staff air travel.

Contact person is Shruti Vijayakumar at svijayakumar@worldbank.org.

	DESCRIPTION	RECOMMENDATION FOR STAFF
1	All airlines that are industry certified by having passed an IATA IOSA audit, unless subsequent safety experience indicates a safety problem.	Good to fly. The Bank has no objection to using these airlines.
2	All airlines that though they are not industry certified are either licensed by a country with an FAA IASA rating of Category 1, or are known to the Bank as safe carriers.	Good to fly. The Bank has no objection to using these airlines.
3	All airlines that are not in (1) or (2) above, or are on any blacklists, or are deemed to be unsafe for other reasons.	<p>3a. Airlines that do not qualify for Category 1 or 2, but there is no information known about them that would increase the risk factor.</p> <p>3b. Airlines that have 1 of the 4 risk criteria listed below, or some other safety factor that has been raised by the Bank's air transport specialist. Check to see if there are any viable and safer transport alternatives before selecting this airline for mission travel.</p> <p>3c. Airlines with significantly elevated risk and 2 or more of the 4 risk criteria listed below, or some other safety factor that has been raised by the Bank's air transport specialist. Use only for essential missions and only if no viable and safer transport alternatives are available.</p>



Gates
D8

WORLD ROUTES STRATEGY SUMMIT

The World Routes Strategy Summit was held on 5 October 2013 in Las Vegas, Nevada. This annual event, held in partnership with ICAO, Routes, and The World Bank is a global meeting place for airlines, airports, tourism authorities, and other government stakeholders.

A number of key themes were debated including the state of the industry, airline mega mergers, airports of the future, air cargo, and sustainability. The first day focused primarily on international issues that impact the entire aviation sector and the second day went in depth on specific challenges for the future of the industry through five technical seminars: Toward a Global MBM Solution for International Aviation; The Future Size and Shape of the Aviation Industry; Cargo; Security versus Facilitation; and A Sustainable Future for Aviation.

Dr. Charles E. Schlumberger, Lead Air Transport Specialist at The World Bank Group, moderated the panel discussion on sustainability and said of the Summit: “The World Routes Strategy Summit is the annual ‘D Check’ or ‘Heavy Maintenance Visit’ of the air transport industry. During two days each year, top airline and airport executives, aviation authorities, and officials of international organizations gather during the World Routes Forum to discuss, dismantle, and analyze every part of our fascinating air transport system. Their insight and conclusions are outlined in a White Paper, which can be seen as health bill of the industry!”

The White Paper was authored by Aaron Heslehurst, News Anchor and Presenter for BBC World Television, who chaired



the Summit and Shruti Vijayakumar, Air Transport Specialist at The World Bank. It is available [here](#) or on the air transport website.

Chicago was selected as the host city for the next Routes conference in September 2014.

COOPERATION WITH INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)

ICAO is the specialized air transport agency of the United Nations. The WBG and ICAO have a long history of cooperation in the development of the air transport sector in emerging and developing countries. The field of cooperation includes air transport policy, safety and security, facilitation, airport and air traffic control infrastructure, and the environment.

While the WBG cannot directly finance activities of ICAO, it is able to include technical staff of the secretariat on missions and project work. In addition, the WBG can fund support services by the Technical Cooperation Bureau (TCB) of ICAO if these are procured in accordance with the credit or grant agreement between the WBG and the client.

The WBG and ICAO have been working closely together on various air transport project issues. For example, in the past, ICAO has provided safety and security audits and supervisory services for WBG projects in West and Central Africa and the South Pacific. ICAO has also assisted in identifying needs and priorities of air transport projects in a number of other countries.

Finally, the WBG continues to foster relations with other international partners, such as Regional Development Banks (e.g. Inter-American Development Bank, African Development Bank or Asian Development Bank) or Regional Economic Communities (e.g. European Union, African Union or the Association of Southeast Asian Nations) to engage in WBG funded air transport projects.

AIRPORTS COUNCIL INTERNATIONAL (ACI) PARTNERSHIP

This past fiscal year, Charles E. Schlumberger travelled to London, UK, and participated as key-note speaker at the ACI Economics and Finance Conference. The conference included high-level participants from airports and airlines. In the industry, it is seen as the flagship event where economic and traffic data and forecast as well as regulatory issues of the industry are discussed.

The objective of Schlumberger's participation was to engage the industry and their leaders (e.g. CEO IATA, CEO ACI, CEO CANSO) to discuss industry forecasts about future air traffic growth. In 2013, a survey revealed that 75 percent of participants believed that air traffic would double by 2030. After presentation at the 2014 conference, 50 percent of participants voted that the matter should be reviewed, while 49 percent were happy with the current forecast.

The WBG continues to strengthen its partnership with ACI. In February 2015, the two organizations are joining forces to host the Annual ACI-WBG Aviation Symposium, to be held annually in London.



COMMUNITY SERVICE

Several World Bank staff members are licensed and active pilots, certified by the US FAA and/or European Aviation Authorities EASA. To remain current on their pilot qualifications, they regularly fly and undergo required refresher training. The most rewarding way of keeping current is to engage in community service by providing free air transportation to people of all ages whose medical needs – evaluation, diagnosis, and treatment – can only be met by health care facilities far from their homes.

In the US, the not-for-profit organization *Angel Flight* provides timely travel to patients who cannot withstand traveling long distances by automobile, rail, or bus, or who do not have the financial means to use suitable alternative transportation. Oftentimes, transport in smaller, private aircraft can better accommodate those patients whose conditions could worsen if exposed to the recirculated air on commercial flights, or who need efficient point-to-point transport.

An *Angel Flight* mission was recently carried out by Charles E. Schlumberger, Lead Air Transport

Specialist and Shruti Vijayakumar, Air Transport Specialist at the World Bank to assist a patient from Clarksville, Tennessee to Washington D.C to receive medical treatment (pictured here).

The WBG's contribution, in accordance to Staff Manual 9.10, consisted of one day of administrative leave to carry out this rewarding community service.

Contact person is Charles E. Schlumberger at cschlumberger@worldbank.org.



For more information visit: www.angelflighteast.org.





The overall outlook for the air transport industry for 2015 is promising, as all regions forecast strong growth. Despite the fact that many regions of the world struggle to cope with the global economic slowdown, growth in air transportation continues to outpace economic development.

Low interest rates and a declining oil price are creating a positive environment for further expansion of the sector. While many emerging markets in the Middle East and Asia have experienced strong growth, which is expected to continue, other regions in Africa and Latin America have more modest growth prospects. These countries, in particular, must strive to implement pending policy and regulatory improvements in order to improve their growth trajectory.

More importantly, the anticipated expansion must take sustainability and its many dimensions into account. Continued liberalization of aviation requires good governance when it comes to traffic rights and economic regulations, as well as a need to address environmental challenges.

Another challenge is establishing and maintaining an adequate safety and security regime which complies with international standards. Without these essential ingredients, the sustainable development of air transport services, which fosters and catalyzes economic growth, will be very difficult.

“Low interest rates and a declining oil price are creating a positive environment for further expansion of the sector.”

The WBG, with its twin goals to end extreme poverty and to boost shared prosperity through economic development, will continue to finance air transport development projects in select client countries. These projects will include investments in aviation infrastructure, such as airports and air traffic control systems, financing of private air carriers and related entities, policy advice and capacity building for regulatory oversight, and strengthening wider governmental responsibilities, such as addressing environmental challenges.

A continued effort will be made to foster the creation of Public Private Partnerships (PPP), especially when it comes to financing large infrastructure projects, such as airports. Typically, the WBG can support PPPs on the public side on regulation and policy matters (IDRB/IDA), and on the private side with advisory services and investments (IFC), as well as through the provision of risk guarantees (MIGA).

“Continued liberalization of aviation requires good governance when it comes to traffic rights and economic regulation.”

Finally, establishing productive partnerships with the air transport industry, as well as with bilateral and international partners, is essential for reaching our set development objectives. The WBG

will continue to work with ICAO, ACI, and IATA on technical projects, including policy advice and technical capacity building. In addition, the WBG will cooperate on aviation with other multinational and regional development banks, and bilateral partners.



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