END EXTREME POVERTY AND BOOST SHARED PROSPERITY ON A LIVABLE PLANET

THE WORLD BANK MISSION
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREWORD</td>
<td>1</td>
</tr>
<tr>
<td>ABBREVIATIONS</td>
<td>3</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>6</td>
</tr>
<tr>
<td>OVERVIEW</td>
<td>7</td>
</tr>
<tr>
<td>PORTFOLIO</td>
<td>9</td>
</tr>
<tr>
<td>IBRD &amp; IDA PROJECTS</td>
<td>11</td>
</tr>
<tr>
<td>AFRICA</td>
<td>22</td>
</tr>
<tr>
<td>MIDDLE EAST &amp; NORTH AFRICA</td>
<td>29</td>
</tr>
<tr>
<td>LATIN AMERICA &amp; CARIBBEAN</td>
<td>31</td>
</tr>
<tr>
<td>EUROPE &amp; CENTRAL ASIA</td>
<td>36</td>
</tr>
<tr>
<td>SOUTH ASIA</td>
<td>38</td>
</tr>
<tr>
<td>EAST ASIA &amp; PACIFIC</td>
<td>40</td>
</tr>
<tr>
<td>IBRD/IDA: AIR TRANSPORT ADVISORY</td>
<td>46</td>
</tr>
<tr>
<td>IFC PROJECTS</td>
<td>55</td>
</tr>
<tr>
<td>MIGA PROJECTS</td>
<td>67</td>
</tr>
<tr>
<td>KNOWLEDGE</td>
<td>69</td>
</tr>
<tr>
<td>INTERNAL SERVICES</td>
<td>74</td>
</tr>
<tr>
<td>EXTERNAL RELATIONS</td>
<td>76</td>
</tr>
<tr>
<td>COMMUNITY SERVICE</td>
<td>81</td>
</tr>
<tr>
<td>OUTLOOK</td>
<td>82</td>
</tr>
</tbody>
</table>
The global air transport industry continued its path of recovery in FY2023 from the collapse triggered by the COVID-19 pandemic. By the end of 2023, the industry had grown by 41.5% in terms of international revenue passenger kilometers (RPKs) compared to the end of 2022, although it remained 11.5% below its pre-COVID-19 level. Air cargo faced several challenges that reversed its strong growth in 2021, including inflation, the Russia-Ukraine war, China’s zero-COVID policy, and supply chain disruptions. Additionally, new trade-restrictive measures further softened demand, resulting in a 1.9% decrease in industry-wide Cargo Tonne Kilometers (CTKs) in 2023. This continued reduction in cargo demand points to an ongoing slowdown in the global economy, with GDP growth at about 3%, down from 3.3% in 2022.

Nevertheless, after three years of severe losses, the global airline industry returned to profitability in 2023 with an estimated overall net post-tax profit of $27.4 billion and an operating profit margin of 5.7%. This is a remarkable performance following losses of $6.9 billion in 2022, $42.0 billion in 2021, and $137.7 billion in 2020, especially given the many continuing challenges in 2023, including wars, oil price volatility, elevated interest rates, continued traffic restrictions in certain regions, and staff shortages.

There were significant regional differences in growth in 2023. The Asia Pacific region achieved the strongest growth of 95.9% RPK, primarily driven by domestic markets in China, Japan, and Australia, while international travel in the region remained weak, particularly in China. Carriers in this region are estimated to generate a net profit of $0.6 billion. Africa followed with RPK growth of 36.7%, resulting in a marginal profit of an estimated $0.1 billion due to high operational costs and infrastructure and connectivity challenges. Middle Eastern carriers continued their strong recovery with 32.3% growth in RPK, resulting in a net profit of $3.1 billion. European carriers exceeded expectations, achieving RPK growth of 19.8% despite various capacity issues and supply-side constraints, resulting in a net profit of $8.6 billion. Latin America saw RPK growth of 16.6%, generating a small profit of $0.2 billion in 2023, with strong performance in Central America, particularly Mexico, El Salvador, Guatemala, and Honduras, while other Latin American operators, emerging from bankruptcy procedures, still generated modest results. Finally, North America, which returned to profitability in 2022, saw its RPK grow by 15.1%. This region leads in terms of profitability, generating $14.8 billion in profit and enjoying high load factors and solid yields given robust demand for air travel.

In 2023, the global economy continued to recover slowly from the impact of the pandemic, the Russian invasion of Ukraine, and the sudden increase in inflation that triggered a cost-of-living crisis. This resilience has been remarkable, as the predicted “hard landing” did not occur, despite disruptions in the energy and food markets and unprecedented monetary tightening to combat high inflation.

Nevertheless, economic growth remains slow and uneven, with significant regional differences. Global economic growth decelerated from 3.5% in 2022 to 3.1% in
ICAO set the objective for aviation to achieve a 5% reduction in CO2 emissions through SAF [...] governments to introduce policies that support the production of SAF

2023 and is projected to slow further to 2.9% in 2024. The US economy expanded by 2.5% in 2023, up from 1.9% in 2022. The Indian economy also exceeded expectations, becoming the world’s fastest-growing major economy, surpassing China. Additionally, generally low unemployment rates worldwide—such as 3.6% in the United States in 2023, the lowest annual average in US history—and similar rates in the European Union, China, and India, have bolstered households’ purchasing power despite high inflation. The airline industry benefited from these factors and generally exceeded expectations.

A key aspect of air transportation is the provision of connectivity between people, cities, and countries, which is crucial for global economic development. This connectivity ensures the seamless flow of goods, people, and ideas necessary to support the global economy. Developing and emerging countries especially depend on air connectivity for effective inclusion in the global business cycle. The COVID-19 pandemic led to a sharp decline in connectivity in 2020, with 28% of unique city pairs on 6000 routes lost. In 2023, connectivity on international and domestic routes grew by 28% and 10%, respectively. The strongest growth occurred in the Asia-Pacific markets, where international connectivity rose by 62% in 2023. North American and European international connectivity grew by 18% and 17%, respectively. However, many developing countries, particularly in Africa, still lack sufficient connectivity to support their economies. Additionally, many airlines in these regions struggle to achieve profitability, often hindered by state-owned carriers enjoying anti-competitive protection.

Despite these gains, airlines continue to face global challenges, including a continued economic slowdown, various geopolitical conflicts, lower-than-needed delivery capacity of new aircraft, and the industry’s path to environmental sustainability. This sustainability largely depends on a significant increase in the production of sustainable aviation fuels (SAF). In November 2023, governments, through the International Civil Aviation Organization (ICAO), set an objective for aviation to achieve a 5% reduction in CO2 emissions through SAF, requiring supportive government policies for SAF production. In terms of safety, 2023 recorded the lowest fatality and accident rate ever, with only one fatal accident involving a turboprop aircraft that claimed 72 lives. While global regulatory oversight of the aviation industry has improved, striving for a zero-accident vision remains essential, especially with emerging technologies like urban air transportation by vertical take-off and landing (VTOL) aircraft.

The 19th edition of the World Bank Group (WBG) Air Transport Annual Report summarizes the current portfolio of activities supporting emerging and developing countries in developing their air transportation sectors, highlighting various initiatives in greater detail. The overall air transport portfolio increased by over 14% in FY2023 to USD 1,157 billion. The strongest increase of 55.6% to USD 512 million was achieved by IDA, while IBRD remained stable, and IFC investments in private sector projects declined by 17%. The WBG also delivered knowledge products concerning climate change, policy, and new technologies.

We look forward to supporting our clients in 2024 in the sustainable development of their air transport sectors.

Dr. Charles E. Schlumberger
Lead Air Transport Specialist
The World Bank
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASANA</td>
<td>Airport Authority, Administracion de Aeropuertos y Servicios</td>
</tr>
<tr>
<td>ABC</td>
<td>Administradora Boliviana de Carreteras</td>
</tr>
<tr>
<td>ACA</td>
<td>Airport Cabron Accreditation</td>
</tr>
<tr>
<td>ACI</td>
<td>Airports Council International</td>
</tr>
<tr>
<td>ADEMA</td>
<td>Aéroports De Madagascar</td>
</tr>
<tr>
<td>ADF</td>
<td>African Drone Forum</td>
</tr>
<tr>
<td>ADREP</td>
<td>Accident/Incident Data Report</td>
</tr>
<tr>
<td>ADS-B</td>
<td>Automatic Dependent Surveillance-Broadcast</td>
</tr>
<tr>
<td>AF(s)</td>
<td>Additional Financing(s)</td>
</tr>
<tr>
<td>AIADB</td>
<td>African Development Bank Group</td>
</tr>
<tr>
<td>AGAV</td>
<td>AG Aviation Africa</td>
</tr>
<tr>
<td>AHL</td>
<td>Airport Holding Limited</td>
</tr>
<tr>
<td>AIG</td>
<td>Airport International Group</td>
</tr>
<tr>
<td>AMO</td>
<td>Airport Management Organization</td>
</tr>
<tr>
<td>ASA</td>
<td>Advisory Services and Analytics</td>
</tr>
<tr>
<td>AT</td>
<td>Air Tractor</td>
</tr>
<tr>
<td>ATAG</td>
<td>Air Transport Action Group</td>
</tr>
<tr>
<td>ATC</td>
<td>Air Traffic Control</td>
</tr>
<tr>
<td>BASA</td>
<td>Bilateral Air Service Agreement</td>
</tr>
<tr>
<td>BITC</td>
<td>Botswana Investment and Trade Centre</td>
</tr>
<tr>
<td>BMP</td>
<td>Biodiversity Management Plan</td>
</tr>
<tr>
<td>BoD</td>
<td>Board of Directors</td>
</tr>
<tr>
<td>BTO</td>
<td>Botswana Tourism Organization</td>
</tr>
<tr>
<td>CAA BA</td>
<td>UK Civil Aviation Authority International</td>
</tr>
<tr>
<td>CAAD</td>
<td>Civil Aviation Authority of Djibouti</td>
</tr>
<tr>
<td>CAAi</td>
<td>CAA International Limited</td>
</tr>
<tr>
<td>CAAN</td>
<td>Civil Aviation Authority of Nepal</td>
</tr>
<tr>
<td>CAASi</td>
<td>Civil Aviation Authority of Solomon Islands</td>
</tr>
<tr>
<td>CAAZ</td>
<td>Civil Aviation Authority of Zimbabwe</td>
</tr>
<tr>
<td>CAB</td>
<td>Civil Aviation Board</td>
</tr>
<tr>
<td>CAP</td>
<td>Cap-Haïtien International Airport</td>
</tr>
<tr>
<td>CAR-s</td>
<td>Central Asia Regional Links Program</td>
</tr>
<tr>
<td>CCTV</td>
<td>Closed-Circuit Television</td>
</tr>
<tr>
<td>CERC</td>
<td>Contingent Emergency Response Component</td>
</tr>
<tr>
<td>CES</td>
<td>Charles E Schlumberger</td>
</tr>
<tr>
<td>CMU</td>
<td>Country Management Unit</td>
</tr>
<tr>
<td>CO2</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>CORSIA</td>
<td>Carbon Offsetting Reduction Scheme for International Aviation</td>
</tr>
<tr>
<td>CTKs</td>
<td>Cargo Tonne Kilometers</td>
</tr>
<tr>
<td>DAF</td>
<td>Djiboutian Air Force</td>
</tr>
<tr>
<td>DCA</td>
<td>Department of Civil Aviation</td>
</tr>
<tr>
<td>DPO</td>
<td>Development Policy Operations</td>
</tr>
<tr>
<td>DRC</td>
<td>Democratic Republic of the Congo</td>
</tr>
<tr>
<td>E&amp;S</td>
<td>Environmental and Social</td>
</tr>
<tr>
<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>ELRP</td>
<td>Emergency Locust Response Program</td>
</tr>
<tr>
<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>eVTOL</td>
<td>Electric Vertical Take-Off and Landing</td>
</tr>
<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
</tr>
<tr>
<td>FY</td>
<td>Fiscal Year</td>
</tr>
<tr>
<td>GAA</td>
<td>Grenada Airports Authority</td>
</tr>
<tr>
<td>GASP</td>
<td>Global Aviation Safety Plan</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GIF</td>
<td>Global Infrastructure Facility</td>
</tr>
<tr>
<td>GISS</td>
<td>Global Implementation Support Symposium</td>
</tr>
<tr>
<td>GLR</td>
<td>Great Lakes Region</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>GoB</td>
<td>Government of Botswana</td>
</tr>
<tr>
<td>GoJ</td>
<td>Government of Jordan</td>
</tr>
<tr>
<td>GoSM</td>
<td>Government of Sint Maarten</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>ICSID</td>
<td>International Centre for Settlement of Investment Disputes</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technologies</td>
</tr>
<tr>
<td>IDA</td>
<td>International Development Association</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>IGAD</td>
<td>Intergovernmental Authority on Development</td>
</tr>
<tr>
<td>InfraSAP</td>
<td>Infrastructure Sector Assessment Program</td>
</tr>
<tr>
<td>ILS</td>
<td>Instrumental Landing System</td>
</tr>
<tr>
<td>ISSA</td>
<td>IATA Standard Safety Assessment</td>
</tr>
<tr>
<td>KAI</td>
<td>Kyrgyz Aviation Institute</td>
</tr>
<tr>
<td>LED</td>
<td>Light Emitting Diode</td>
</tr>
<tr>
<td>LTAG</td>
<td>Long-Term Global Aspirational Goal</td>
</tr>
<tr>
<td>MAA</td>
<td>Megersa Abera Abate</td>
</tr>
<tr>
<td>MBIA</td>
<td>Maurice Bishop International Airport</td>
</tr>
<tr>
<td>MCA</td>
<td>Ministry of Communication and Aviation</td>
</tr>
<tr>
<td>MDBs</td>
<td>Multilateral Development Banks</td>
</tr>
<tr>
<td>MIGA</td>
<td>Multilateral Investment Guarantee Agency</td>
</tr>
<tr>
<td>MOI</td>
<td>Ministry of Infrastructure</td>
</tr>
<tr>
<td>MOID</td>
<td>Ministry of Infrastructure Development, Public Utilities, Energy, Transportation, and Implementation</td>
</tr>
<tr>
<td>MoF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MOT</td>
<td>Ministry of Transport</td>
</tr>
<tr>
<td>MOTCA</td>
<td>Ministry of Tourism and Civil Aviation</td>
</tr>
<tr>
<td>MoTID</td>
<td>Ministry of Transport and Infrastructure Development</td>
</tr>
<tr>
<td>MK</td>
<td>Air Mauritius</td>
</tr>
<tr>
<td>MRO</td>
<td>Maintenance, Repair, and Overhaul</td>
</tr>
<tr>
<td>MTPW</td>
<td>Ministry of Transport and Public Works</td>
</tr>
<tr>
<td>NAA</td>
<td>National Aviation Authority</td>
</tr>
<tr>
<td>NAABOL</td>
<td>Navegación Aérea y Aeropuertos Bolivianos</td>
</tr>
<tr>
<td>NDC</td>
<td>National Determined Contributions</td>
</tr>
<tr>
<td>NDRMF</td>
<td>National Disaster Risk Management Fund</td>
</tr>
<tr>
<td>NMP</td>
<td>Natural Resources Management Plan</td>
</tr>
<tr>
<td>NRZ</td>
<td>National Railways of Zimbabwe</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OFNAC</td>
<td>Office National de l’Aviation Civile</td>
</tr>
<tr>
<td>OPEX</td>
<td>Operational Expenditure</td>
</tr>
<tr>
<td>PAIP</td>
<td>Pacific Aviation Investment Program</td>
</tr>
<tr>
<td>PAP</td>
<td>Port-au-Prince’s Toussaint Louverture Airport</td>
</tr>
<tr>
<td>PASO</td>
<td>Pacific Aviation Safety Office Reform Project</td>
</tr>
<tr>
<td>PCN</td>
<td>Project Concept Note</td>
</tr>
<tr>
<td>PDO</td>
<td>Project Development Objective</td>
</tr>
<tr>
<td>PEEPA</td>
<td>Public Enterprises Evaluation and Privatization Agency</td>
</tr>
<tr>
<td>PHDSP</td>
<td>Pakistan’s Hydrometeorological and Disaster Risk Management Services Project</td>
</tr>
<tr>
<td>PHCS</td>
<td>Pakistan’s Hydromet and Climate Services Project</td>
</tr>
<tr>
<td>PJIA</td>
<td>Princess Juliana International Airport</td>
</tr>
<tr>
<td>PJIAE</td>
<td>Princess Juliana International Airport Operating Company N.V.</td>
</tr>
<tr>
<td>PMD</td>
<td>Pakistan’s Meteorological Department</td>
</tr>
<tr>
<td>PMU</td>
<td>Project Implementation Unit</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td>PRAS</td>
<td>Pacific Regional Aviation Strategy</td>
</tr>
<tr>
<td>PRIF</td>
<td>Pacific Region Infrastructure Facility</td>
</tr>
<tr>
<td>PROLUC</td>
<td>Emergency Locust Response Program</td>
</tr>
<tr>
<td>PSO</td>
<td>Public Service Obligation</td>
</tr>
</tbody>
</table>
This report benefited from the contributions of a number of staff members from across the World Bank Group.


We would also like to thank Nicolas Peltier, Global Director Transport, for his support, as well as Sandy Belle Habchi for the research and preparation 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, guarantees, 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 USD 1.25 a day to no more than 3%
- Promote shared prosperity by boosting the income of the bottom 40% 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, transport, and digital development.

The Institutions and the New Structure

The International Development Association (IDA) is the part of the World Bank that helps the world’s poorest countries by providing concessional loans, or credits, and grants. 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 Digital Development are now 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 institution. 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 it allows people to interact and generate the knowledge and solutions that foster long-term growth. The World Bank’s transport 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 USD 38.32 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, 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, accessible, 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 travel).
Portfolio and Project Highlights

During FY2023, the World Bank Group saw significant growth in its Air Transport Portfolio, which reached USD 1.157 billion—an increase of nearly 14% from FY2022’s USD 1.018 billion. This growth is part of the ongoing recovery from the COVID-19 pandemic, with substantial contributions from the development of key airport infrastructure projects. The Air Transport segment now accounts for approximately 2.7% of the WBG’s expansive USD 43.51 billion Transport portfolio, marking a slight rise from the previous year. Additionally, the Air Transport portfolio represents about 10.8% of the WBG’s comprehensive active portfolio, valued at USD 404.32 billion.

In FY2023, the Air Transport portfolio expanded to include 29 lending and non-lending projects or project components through the IBRD and IDA, up from 27 projects in FY2022. These projects cover a broad spectrum, from enhancing airport infrastructure and safety to advancing sector reforms and modernization efforts across various countries.

Key IBRD/IDA projects that were continued or initiated in FY2023 include: (i) the Cameroon Transport Sector Development Project (P150999), aiming to improve safety and security at Cameroon’s four international airports with a funding commitment of USD 48.7 million; (ii) the Chad Local Development and Adaptation Project (P171611), supporting management and conservation efforts with a commitment of USD 13 million; and (iii) the Rodrigues Airport Project in Mauritius (P180266), focusing on enhancing air transport access and climate resilience, backed by significant infrastructural investments.

Major active projects financed by the International Finance Corporation (IFC) include Antalya Airport in Turkey, Almaty Airport in Kazakhstan, Sofia Airport in Bulgaria, Belgrade Airport in Serbia, Zagreb Airport in Croatia, Airports in Nosy Be and Antananarivo in Madagascar, Lima Airport in Peru, Enfidha Airport in Tunisia, and the Agila-Pacific project in the Philippines.

Additionally, MIGA commitments to the air transport sector, amounting to approximately USD 15.75 billion, include two guarantees in FY2023: Queen Alia International Airport and the Madagascar Airports.

These developments highlight the WBG’s sustained efforts to strengthen global air transport infrastructure, crucial for economic recovery and sustainable development. The strategic investments and projects initiated in FY2023 demonstrate the WBG’s proactive role in fostering robust international connectivity and supporting long-term sectoral improvements.

Research and External Relations

World Bank staff members continued to represent the organization externally at various air transport conferences and events. These included the FRA Air Cargo Conference (6-8 September 2022), the Roundtable on “Low Carbon Fuels for Aviation and Maritime Transport” (27 February 2023), the First World Bank and Boeing Meeting (21 March 2023), the ICAO High-Level Exchange of Views on the Challenges and Opportunities for Aviation and Financial Institutions on Aviation Decarbonization (27-28 March 2023), the ICAO Global Implementation Support Symposium (27 May 2023), the IATA Annual Meeting (DATE), and the ACI-LAC General Aviation Conference (19-21 June 2023).

Research and knowledge dissemination, both internal and external, continue to be provided by WBG’s Aviation Knowledge Area (AVKA). The main knowledge products in FY2023 were:


(ii) A study on climate resilience and sustainability practices for Caribbean airports to identify essential investments that could achieve net-zero emissions, enhance climate resilience, adapt to climate change, and prepare for next-generation sustainable aircraft.

(iii) An analytical report on sustainable aviation fuels (SAF), offering a comprehensive view of SAF investment decisions and financing frameworks in developing countries.

(iv) The "Handbook for the Development of the Air Transport Sector," which aims to build, expand, and disseminate core sector concepts and good practices fundamental to the development of air transport.
PORTFOLIO

USD 1,157M

FY2023 WBG AIR TRANSPORT PORTFOLIO

<table>
<thead>
<tr>
<th>TEN YEAR TREND - AIR TRANSPORT PORTFOLIO (US$ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FY13</strong></td>
</tr>
<tr>
<td>IBRD</td>
</tr>
<tr>
<td>IDA</td>
</tr>
<tr>
<td>IFC</td>
</tr>
<tr>
<td>Growth</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
The WBG is a vital source of financial and technical assistance to developing countries through low-interest loans, credits, and grants. In Fiscal Year 2023, the World Bank’s Air Transport Portfolio was around USD 1,157 million. This included a total of 29 lending and non-lending 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 Investment portfolio. In addition, IFC is supporting 34 Advisory Mandates and MIGA is providing two guarantees for the Air Transport Sector.

<table>
<thead>
<tr>
<th>Active Portfolio</th>
<th>IBRD</th>
<th>IDA</th>
<th>IFC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in millions USD)</td>
<td>FY23</td>
<td>FY22</td>
<td>Change</td>
<td>FY23</td>
</tr>
<tr>
<td>WB Group Total Active Portfolio</td>
<td>149,305</td>
<td>141,069</td>
<td>5.84%</td>
<td>182,066</td>
</tr>
<tr>
<td>WB Group Active Portfolio - Transport</td>
<td>14,826</td>
<td>16,905</td>
<td>-12.30%</td>
<td>19,636</td>
</tr>
<tr>
<td>Transport % of Total Active Portfolio</td>
<td>9.93%</td>
<td>11.98%</td>
<td>-2.05 pp</td>
<td>10.79%</td>
</tr>
<tr>
<td>Air Transport Active Projects</td>
<td>44.16</td>
<td>44.16</td>
<td>0.00%</td>
<td>496.56</td>
</tr>
<tr>
<td>% of Total Active Portfolio</td>
<td>0.03%</td>
<td>0.03%</td>
<td>0 pp</td>
<td>0.27%</td>
</tr>
<tr>
<td>% of Total Transport Portfolio</td>
<td>0.30%</td>
<td>0.26%</td>
<td>0.04 pp</td>
<td>2.53%</td>
</tr>
</tbody>
</table>

pp=percentage points

Note: Excluding the Multilateral Investment Guarantee Agency (MIGA)

For IFC, outstanding balances across all product categories (loans, quasi loans, equity at acquisition cost, quasi-equity, risk management and guarantees)
Active Air Transport Projects in FY23: 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.
World Bank Commitment (Lending)

- IBRD
- IDA
<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Project Code</th>
<th>Project Name</th>
<th>Description of Aviation Component (s)</th>
<th>WBG Commitment (USD M)</th>
<th>Type</th>
<th>Status as of End of FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Cameroon</td>
<td>P150999</td>
<td>CMR Transport Sector Development Project</td>
<td>To improve safety and security at Cameroon’s four international airports.</td>
<td>192.0</td>
<td>IBRD</td>
<td>Active</td>
</tr>
<tr>
<td>Africa</td>
<td>Chad</td>
<td>P171611</td>
<td>Chad Local Development and Adaptation Project</td>
<td>To support the improved management of OROA as well as support national efforts to fight against poaching and promote conservation of biodiversity in line with Chad’s engagement in the GEF-7 Global Wildlife Program.</td>
<td>54.5</td>
<td>IDA Grant</td>
<td>Active</td>
</tr>
<tr>
<td>Africa</td>
<td>Democratic Republic of Congo</td>
<td>P159217</td>
<td>DRC Hydromet</td>
<td>Institutional and regulatory strengthening, capacity building and implementation support, as well as modernization of equipment, facilities and infrastructure for basic observation and meteorological forecasting.</td>
<td>8.0</td>
<td>IBRD</td>
<td>Closed</td>
</tr>
<tr>
<td>Africa</td>
<td>Democratic Republic of Congo</td>
<td>P161877</td>
<td>DRC Transport and Connectivity Support Project</td>
<td>To provide resilient, safe, and sustainable connectivity in and between selected provinces in Kauai region and Eastern part of DRC, and to increase the transparency of FONER, RVA, and the Regulatory Authority of Post, Telecommunications, and ICT.</td>
<td>500.0</td>
<td>IDA Credit &amp; IDA Grant</td>
<td>Active</td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component(s)</td>
<td>WBG Commitment (USD M)</td>
<td>Type</td>
<td>Status as of End of FY2022</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Africa</td>
<td>Eastern and Southern Africa</td>
<td>P173702</td>
<td>Emergency Locust Response Program</td>
<td>To limit the growth of existing desert locust populations and curb their spread while mitigating the risks associated with control measures and their impacts on human health and the environment through continuous surveillance, control measures, and risk reduction management.</td>
<td>255.0</td>
<td>IDA Credit &amp; IDA Grant</td>
<td>Active</td>
</tr>
<tr>
<td>Africa</td>
<td>Guinea-Bissau</td>
<td>P161923</td>
<td>Guinea-Bissau Rural Transport Project</td>
<td>To improve the physical access of the rural population to markets and social services in selected areas.</td>
<td>15.0</td>
<td>No info because of restructuring</td>
<td>IDA Credit</td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component(s)</td>
<td>WBG Commitment (USD M)</td>
<td>Total (USD M)</td>
<td>Aviation Component</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>--------------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Africa</td>
<td>Kenya</td>
<td>P121019</td>
<td>Kenya Infrastructure Finance/PPP Project</td>
<td>To increase private investment in Kenya’s infrastructure market across sectors and to sustain this participation over time with support to three key development areas: (i) the enabling environment, (ii) the PPP pipeline, and (iii) financing.</td>
<td>90.0</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Africa</td>
<td>Mauritius</td>
<td>P180266</td>
<td>Rodrigues Airport Project</td>
<td>To improve air transport access and enhance the climate resilience and productivity of the island of Rodrigues.</td>
<td>184</td>
<td>184</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>Rwanda</td>
<td>P151083</td>
<td>Great Lakes Trade Facilitation Project</td>
<td>Rehabilitation of Kamembe International Airport by Lake Kivu in Southwestern Rwanda.</td>
<td>102</td>
<td>14.2</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>South Africa</td>
<td>P164847</td>
<td>South Africa Trade and Connectivity Project</td>
<td>To support Malawi and Mozambique in increasing regional trade coordination, reducing trade costs and time, developing regional value chains, and improving access to infrastructure.</td>
<td>380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component(s)</td>
<td>Total (USD M)</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------</td>
<td>--------------</td>
<td>---------------------------------------------</td>
<td>--------------</td>
<td>---------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Africa</td>
<td>Tanzania</td>
<td>P-165660</td>
<td>Tanzania Transport Integration Project</td>
<td>P-122907</td>
<td>BO National Roads &amp; Airport Infrastructure</td>
<td>To improve the safety, climate resilience and capacity of Key road corridors and regional airports and improve the capacity of relevant transport sector institutions to plan for and manage the sector.</td>
<td>550</td>
</tr>
<tr>
<td>Latin America &amp; the Caribbean</td>
<td>Bolivia</td>
<td>P-172951</td>
<td>Grenada - Caribbean Regional Air Transport Connectivity</td>
<td>P-202951</td>
<td>Grenada - Caribbean Regional Air Transport Connectivity</td>
<td>Infrastructure development; improve safety, security and operational reliability of the Rurrenabaque Airport. The project also aims to strengthen the institutional capacity of GAA and Civil Aviation Division through a combination of regional and Grenada specific technical assistance and capacity building activities with a focus on enhancing aircraft operational safety, airport management capability, climate/disaster resilience, and gender diversity in the workplace.</td>
<td>104.0</td>
</tr>
<tr>
<td>Latin America &amp; the Caribbean</td>
<td>Grenada</td>
<td>P-202951</td>
<td>Grenada - Caribbean Regional Air Transport Connectivity</td>
<td>P-202951</td>
<td>Grenada - Caribbean Regional Air Transport Connectivity</td>
<td>To improve MBIA operational safety and resilience as well as support Grenada’s efforts to comply with ICAO’s SARP and abide by the POS Declaration. The project also aims to strengthen the institutional capacity of GAA and Civil Aviation Division through a combination of regional and Grenada specific technical assistance and capacity building activities with a focus on enhancing aircraft operational safety, airport management capability, climate/disaster resilience, and gender diversity in the workplace.</td>
<td>17.0</td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component(s)</td>
<td>WBG Commitment Total (USD M)</td>
<td>Aviation Component</td>
<td>Type</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Latin America &amp; the Caribbean</td>
<td>Haiti</td>
<td>P170907</td>
<td>Caribbean Regional Air Transport Connectivity Project - Haiti</td>
<td>To improve operational safety and navigation efficiency of air transport in the Recipient’s territory and increase the climate and disaster resilience of associated infrastructure at the Recipient’s international airports.</td>
<td>84.0</td>
<td>84</td>
<td>IDA Grant</td>
</tr>
<tr>
<td>Latin America &amp; the Caribbean</td>
<td>Saint Lucia</td>
<td>P170860</td>
<td>Saint Lucia - Caribbean Regional Air Transport Connectivity Project</td>
<td>To improve operational safety and navigation efficiency of air transport and enhance resilience of Saint Lucia’s airport infrastructure to natural disasters.</td>
<td>45.0</td>
<td>41</td>
<td>IDA Credit</td>
</tr>
<tr>
<td>Latin America &amp; the Caribbean</td>
<td>Sint Maarten</td>
<td>P167974</td>
<td>Sint Maarten Airport Terminal Reconstruction Project</td>
<td>The development objective to restore the passenger capacity of Princess Juliana International Airport to pre-Hurricane Irma levels with improved resilience towards hurricanes.</td>
<td>92.0</td>
<td>72</td>
<td>IDA Grant</td>
</tr>
<tr>
<td>Europe &amp; Central Asia</td>
<td>Kyrgyz Republic</td>
<td>P159220</td>
<td>Central Asia Regional Links Program - Phase 3</td>
<td>Strengthening of the aviation sector’s safety and service provision. Addressing aviation safety and service provision would help the Civil Aviation Agency (CAA) to reach ICAO’s international safety standards and recommended practices, as well as to overcome the current blacklist of Kyrgyz carriers by the EU, enhance local carriers’ growth opportunities and ultimately increase the country’s level of connectivity, a result that would benefit both residents and international visitors.</td>
<td>55</td>
<td>4.5</td>
<td>IDA Grant &amp; IDA Credit</td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component (s)</td>
<td>WBG Commitment (USD M)</td>
<td>Type</td>
<td>Status as of End of FY2022</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------</td>
<td>--------------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>South Asia</td>
<td>Pakistan</td>
<td>P163924</td>
<td>Pakistan Hydromet &amp; DRM Services Project</td>
<td>Upgrading of the monitoring and forecasting system at airports to improve aviation services, and the installation of an Aircraft Meteorological Data Relay system at 10 international airports.</td>
<td>188.0</td>
<td>IDA Grant</td>
<td>Active</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Pacific Islands</td>
<td>P145057</td>
<td>Pacific Aviation Safety Office Reform</td>
<td>Strengthen the Pacific Aviation Safety Office’s technical and coordination capacity.</td>
<td>6.7</td>
<td>IDA Grant</td>
<td>Closed</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Samoa</td>
<td>P176272</td>
<td>Samoa Aviation and Roads Investment Project</td>
<td>To support investments to improve the climate resilience and safety of aviation in Samoa.</td>
<td>66.0</td>
<td>IDA Grant</td>
<td>Active</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Solomon Islands</td>
<td>P166622</td>
<td>Solomon Islands Roads and Aviation Project</td>
<td>Honiara and Munda Airports Infrastructure Investments to improve operational safety and overall infrastructure resilience to climate change at Honiara, enable Munda to receive international flights with an enhanced resilience to climatic disasters, and UXO surveys. It will also provide institutional strengthening to the aviation sector and prepare for Auki Gwaunaru’u Airport Infrastructure Investments.</td>
<td>51.0</td>
<td>IDA Credit &amp; IDA Grant</td>
<td>Active</td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component(s)</td>
<td>WBG Commitment (USD M)</td>
<td>Total (USD M)</td>
<td>Type</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>--------------</td>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Solomon Islands</td>
<td>P176548</td>
<td>Second Solomon Islands Roads and Aviation Project</td>
<td>To improve the climate resilience and safety of the Recipient’s road and aviation sectors, and in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.</td>
<td>89.2</td>
<td>72.69</td>
<td>IDA Credit &amp; IDA Grant</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Tonga</td>
<td>P161539</td>
<td>Tonga Climate Resilient Transport Project</td>
<td>Support the aviation sector infrastructure rehabilitation.</td>
<td>28.9</td>
<td>2</td>
<td>IDA Grant</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Tonga</td>
<td>P176208</td>
<td>Tonga Climate Resilient Transport Project II</td>
<td>Feasibility studies, detailed design, and physical works for identified aviation infrastructure to improve their climate resilience and safety.</td>
<td>38.0</td>
<td>8.35</td>
<td>IDA Grant</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Tuvalu</td>
<td>P128840</td>
<td>Tuvalu Pacific Aviation Investment</td>
<td>Infrastructure investment, sector reform and training.</td>
<td>35.7</td>
<td>25.7</td>
<td>IDA Grant</td>
</tr>
<tr>
<td>East Asia Pacific</td>
<td>Tuvalu</td>
<td>P180674</td>
<td>Tuvalu Safe and Resilient Aviation Project</td>
<td>To improve the safety and resilience of the Recipient’s aviation sector and to ensure reliable regional air connectivity.</td>
<td>23.0</td>
<td></td>
<td>IDA Grant</td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component(s)</td>
<td>Status as of End of FY2022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
<td>--------------</td>
<td>------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin America &amp; the Caribbean</td>
<td>Sint Maarten</td>
<td>P167974</td>
<td>Sint Maarten Airport Terminal Reconstruction Project</td>
<td>The development objective to restore the passenger capacity of Princess Juliana International Airport to pre-Hurricane Irma levels with improved resilience towards hurricanes.</td>
<td>Active</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>Country</td>
<td>Project Code</td>
<td>Project Name</td>
<td>Description of Aviation Component (s)</td>
<td>WBG Commitment (USD M)</td>
<td>Status as of End of FY2022</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------</td>
<td>--------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>Democratic Republic of Congo</td>
<td>P178357</td>
<td>DRC Transport and Connectivity Support Project 2</td>
<td>To provide resilient, safety and sustainable connectivity to and within selected provinces in Eastern part of DRC, and to support private capital mobilization in the road and digital sector.</td>
<td>50.00</td>
<td>Pipeline FY2023</td>
<td></td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>Iraq</td>
<td>P178995</td>
<td>Iraq Aviation Sector Reform and Baghdad Airport Modernization Project</td>
<td>To promote private sector participation as a component of aviation sector reforms in Iraq.</td>
<td>200.00</td>
<td>Pipeline FY2023</td>
<td></td>
</tr>
</tbody>
</table>
AFRICA
Project Highlights
In FY2016, the World Bank (WB), through the International Bank for Reconstruction and Development (IBRD), approved a loan of USD 192 million to support the Cameroon Transport Sector Development Project. The primary objectives of this initiative include strengthening transport planning, enhancing the efficiency and safety of the 364-kilometer Babadjou-Bamenda section along the Yaoundé-Bamenda transport corridor, and improving safety and security at selected airports.

The project comprises four main components: (i) Transport Planning and Capacity Building, (ii) Road Transport Efficiency Improvements, (iii) Air Transport Safety and Security Improvements, and (iv) Support to Project Implementation Management and Monitoring. The third component focuses on aligning with the International Civil Aviation Organization’s (ICAO) Aerodrome and Ground Assistance implementation ratings and security oversight systems at key airports, including Yaoundé, Douala, Garoua, and Maroua. This involves strengthening airport safety and security infrastructure, enhancing oversight of air transport safety and security, and improving the capacity for air transport planning.

In April 2022, the project was restrucured to integrate enhanced security measures in coordination with the Cameroonian government and to facilitate the successful completion of its activities. By December 2022, the implementation of the aviation component was assessed as satisfactory, with significant infrastructure developments completed despite the logistical challenges posed by the COVID-19 pandemic.

Although several project activities were scheduled to conclude in 2022, delays were encountered in the procurement of security equipment, the construction of patrol roads, and the reinforcement of security fences at the Douala and Yaoundé-Nsimalen airports. These delays are anticipated to be addressed prior to the project’s conclusion.

Following a comprehensive review and notable progress in executing the activities, the project is now considered to be effectively back on track towards achieving its developmental objectives.

Contact persons are Papa Modou Ndiaye at pndiaye4@worldbank.org and Francis Eric Ovanda Mbele at fovandambele@worldbank.org.

In 2017, the World Bank approved USD 8 million in financing to support the Democratic Republic of the Congo (DRC) Hydromet Project. This initiative aimed to enhance the country’s hydrometeorological and climate services, recognizing their importance in evaluating socio-economic impacts and formulating effective policy responses for long-term development. Key sectors such as aviation and airfreight were to benefit from improved, accurate, and timely hydrometeorological information and warnings.

The project encompassed four primary components: (i) Institutional and Regulatory Strengthening, (ii) Modernization of Equipment and Infrastructure for Basic Observation and Forecasting, (iii) Improvement of Hydromet Information Service Delivery, and (iv) Project Management. Significant efforts were made to build institutional capacity for hydrometeorological observation and forecasting. This included assessing the roles and mandates of relevant government agencies such as the Civil Aviation Agency (RVA) and the national meteorological institute, MettleSat, as well as modernizing basic observation and forecasting networks and infrastructure.

In June 2021, the project underwent restructuring to scale down certain activities and refocus on areas with substantial progress, directly contributing to the project’s primary objectives. Despite revisions, most targets were achieved, including implementing steps toward a Quality Management System (QMS) in line with ICAO requirements for meteorological services in civil aviation.

By project completion, challenges persisted, including an unresolved dispute over the management of meteorological services at airports and the distribution of aeronautical royalties between MettleSat and RVA. This dispute affected the signing of a crucial Memorandum of Understanding and overall project efficiency. The project provided technical assistance for drafting meteorological legislation and developed a business plan for MettleSat, aiming to ensure the sustainability of project results and outlining revenue strategies in the aviation sector.

The project’s implementation efficiency encountered hurdles due to issues such as the lack of government counterpart funding, disputes over revenue sharing, and various operational and environmental challenges, including the COVID-19 pandemic. These factors resulted in multiple extensions of the project grants, totaling 14.5 months, and impacted the realization of socio-economic benefits, especially in the aviation sector.

Contact person is Christian Vang Eghoff at cehoff@worldbank.org.
DEMOCRATIC REPUBLIC OF CONGO
DRC Transport and Connectivity Support Project (P161877)

In June 2022, the World Bank approved the DRC Transport and Connectivity Support Project to enhance resilient, safe, and sustainable transport and digital connectivity in the Kasai region and Eastern Democratic Republic of Congo. This initiative, part of a series with an estimated total cost of USD 500 million (including USD 427.98 million as an IDA Credit and USD 72.02 million as an IDA Grant), focuses on bolstering sector governance and institutional transparency, particularly in transport.

Targeting the provinces of Ituri, North Kivu, Lomami, Kasai Oriental, Kasai Central, and Kasai, the project addresses the need for improved transport access and connectivity in economically underdeveloped areas with limited access to opportunities.

The project encompasses three primary components:

(i) Road Connectivity Improvement: Enhancing road infrastructure to better connect the targeted regions with neighboring countries.

(ii) Transport and Digital Connectivity Improvement Program, which includes two subcomponents:

a. Subcomponent 2.1: Further development of road connectivity.

b. Subcomponent 2.2: Aviation infrastructure enhancement, focusing on drainage and safety improvements at Goma Airport for airport certification and safety.

(iii) Project Management: Overseeing the implementation and monitoring of project activities.

This project aims to foster economic development, reduce poverty, and enhance access to services and opportunities for the population in the Kasai region and Eastern DRC by improving transport and digital connectivity.

Contact persons are Tojoarofenitra Ramanankirahina at tramanankirahina@worldbank.org, Peter Ngwa Taniform at ptaniform@worldbank.org, and Isabella Hayward at ihayward@worldbank.org.

DEMOCRATIC REPUBLIC OF CONGO
DRC Transport and Connectivity Support Project 2 (P178357)

The project is currently under preparation and envisions an integrated intermodal transport strategy along with a Transport Infrastructure Priority Investment Program, which includes air transport. Board approval is expected on 30 September 2024.

Contact persons are Tojoarofenitra Ramanankirahina at tramanankirahina@worldbank.org, Peter Ngwa Taniform at ptaniform@worldbank.org, and Isabella Maria Linnea Hayward at ihayward@worldbank.org.

EAST AND SOUTHERN AFRICA
Emergency Locust Response Program (P173702)

On 20 May 2020, the World Bank approved the Emergency Locust Response Program (ELRP), allocating USD 128 million in IDA Credit and USD 31.5 million in IDA Grant. This program aims to mitigate the locust infestation crisis in affected countries through three primary components: (i) Monitoring and Control of Locust Population, (ii) Safeguarding the Livelihoods of Impacted Households, and (iii) Enhancing Coordination and Early Warning Preparedness.

Key components include:

(i) Improved Surveillance and control of Locusts: Enhanced monitoring, forecasting, and targeted control measures for locusts, including both aerial and ground-based approaches.

(ii) Protection of Vulnerable Populations: Emphasis on protecting the economically disadvantaged in areas impacted by locusts, preventing asset loss, ensuring access to food, and rehabilitating affected livelihoods.

(iii) Capacity Strengthening for Surveillance and Control: Development of regional and national capabilities for effective locust surveillance and control, incorporating early warning systems for a prompt response to infestations.

(iv) Project Management: Encompasses implementation support, financial management, procurement, environmental and social management, communication, and knowledge management.

At approval, Phase 1 of the project comprised Djibouti (USD 6 million), Ethiopia (USD 63 million), Kenya (USD 35 million), and Uganda (USD 48 million). In response to a request from the government of Ugan-
da, the Uganda credit was later canceled without any disbursement.

Phase 1 is 75.14% disbursed. Phase 2, approved on 29 June 2020, allocated a USD 40 million Grant to Somalia, with an additional USD 75 million approved in June 2021. It is 98.1% disbursed. Phase 3, initiated in June 2021, provided USD 50.7 million to South Sudan and USD 3 million to IGAD. It is 72.61% disbursed and is set to close on 30 August 2024.

ELRP’s design aimed to enhance food security by halting locust invasions and supporting vulnerable households in resuming agricultural activities. Investments in national preparedness include technology, training, and strategic partnerships for improved pest surveillance and management.

The IGAD transboundary pest platform, featuring working groups on capacity building and early warning systems, conducted a regional workshop in October 2022 to facilitate data sharing and analysis. In August 2023, an IGAD Ministerial Meeting endorsed a policy for managing desert locusts and other transboundary pests. Subsequently, member countries signed a Memorandum of Understanding in November 2023 for cross-boundary pest management.

Moreover, a supervision mission to Djibouti from 11-15 February 2023 focused on preparing and deploying an Air Tractor 504 (AT504) aircraft for agricultural use, funded by the World Bank (see picture on title page). The mission aimed to ensure safe operation through comprehensive training and oversight, given the higher accident rates of agricultural aircraft. The AT504, managed by the Ministry of Agriculture and operated by the Djiboutian Air Force (DAF), required thorough training due to DAF’s lack of experience.

Discussions involved the Ministry of Agriculture, DAF, the Civil Aviation Authority of Djibouti (CAAD), and the South African flight school AG AVIATION AFRICA (AGAV). It was agreed that four DAF pilots and three mechanics (two from DAF and one from CAAD) would be trained and licensed on the AT504. The training includes two phases: initial training at AGAV in South Africa and real-time flight training in Djibouti.

The mission also addressed a safety issue with improperly stored pesticide barrels, instructing immediate relocation to prevent hazards. Administrative steps for training, including visas and procurement of flight services, were expedited. This mission highlights the importance of thorough preparation for the safe deployment of agricultural aircraft, supporting the Emergency Locust Response Program.

Contact persons are Mohammad Imtiaz Akhtar Alvi at iavlvi@worldbank.org, Eva Hasiner at ehasiner@worldbank.org, Vijay Kumar Vutukuru at vvutukuru@worldbank.org, and Weela Ketema at wketema1@worldbank.org.

KENYA
Kenya Infrastructure Finance/PPP Project (121019)

On 15 November 2012, the World Bank approved the Kenya Infrastructure Finance/Public-Private Partnership (PPP) project. The goal of this project is to boost private sector investment in Kenya’s infrastructure across multiple sectors and sustain this involvement over time. It focuses on three primary areas: fostering a supportive environment, establishing a portfolio of viable projects, and securing financing.

The primary aim of the project is to enhance conditions conducive to creating a series of bankable PPP projects. This includes implementing policies and measures that facilitate long-term financing, such as developing a more robust government debt market, reforming market architecture, and introducing regulations supporting financial instruments like infrastructure bonds and asset-backed securities. Additionally, reforms in the pension and insurance sectors are included to promote growth in long-term finance.

The project is funded by two International Development Association (IDA) credits: IDA 5157-KE of USD 40 million, effective since February 2013, and IDA 6121-KE Additional Financing of USD 50 million, approved in July 2017. Its objective is to attract private investments into Kenya’s infrastructure, with a focus on sectors such as water, energy transmission, ports, ICT, and aviation, to address investment gaps and prioritize infrastructure projects.

The initiative aims to bolster the capacity of the Kenyan government and various sectors to efficiently implement PPPs and encourage private sector engagement in infrastructure development. This effort is expected to strengthen Kenya’s infrastructure network, thereby contributing to its economic growth and development, with a special focus on enhancing the aviation sector through private investment and participation.

Contact persons are Isfandyar Zaman Khan at ikhan@worldbank.org, and Shyamala Shukla at sshukla2@worldbank.org.

MAURITIUS
Rodrigues Airport Project (P180266)

The World Bank approved a new project aimed at enhancing Rodrigues Island’s connectivity in Q1 of FY2024. This project focuses on developing a new runway and improving the safety and efficiency of the infrastructure at Plaine Corail Airport on Rodrigues.

The project is structured into three main components:

(i) Infrastructure Development: This primary component involves constructing a new 2,100-meter runway, along with associated facilities such as taxiways and an apron suitable for single-aisle jet
planes. The new runway is a central feature of the project and is expected to account for the majority of the project costs, which will be finalized after detailed design studies are completed. This component also includes strengthening the existing runway for use as a taxiway, building three new aircraft parking stands, an isolated apron, floodlighting, ground power units, and improvements in drainage, flood control, and air navigation systems. Additionally, it will cover the construction of ancillary buildings essential for efficient airport operations, including a new rescue and firefighting station, a metro station, a quarantine facility, a power center, and cold storage facilities.

(ii) **Project Management and Technical Assistance:** This component involves financing various studies and technical assistance required for direct project management. This includes establishing a Project Implementation Unit, conducting environmental and social studies, and performing audits. It also encompasses studies for the development and modernization of the air transport sector in Mauritius, as well as assistance in implementing key aspects of the Rodrigues Development Plan in sectors such as water and agriculture.

(iii) **Sustainability and Development:** This component focuses on sustainability and development issues on Rodrigues, targeting water sustainability and development, and strengthening the tourism sector on the island.

A preparatory mission for the Rodrigues Airport Project in Mauritius took place from 12 to 16 December 2022. The mission aimed to review and discuss the proposed financing for a new runway at Rodrigues Airport (RRG), focusing on operational and regulatory aspects, as well as broader air transport development discussions with local counterparts.

The mission reviewed RRG’s current infrastructure and proposed new runway layout. The existing runway, 1267 meters long and 30 meters wide, accommodates ATR and other small turboprop aircraft. While a new runway is planned, the mission recommended considering the current runway as an alternative or emergency landing site, given the lack of nearby alternatives.

The terminal building, though small, is in good condition, handling about 140 passengers. However, it would need expansion to accommodate larger aircraft. The mission suggested private sector participation for terminal enhancement. Current approaches include RNAV and NDB, but the control tower only provides advisory services, making instrument approaches ineffective. Enhancements to Rescue and Fire Fighting Services (RFFS) are needed to upgrade from category 5 to category 7, requiring additional fire trucks and equipment.

The new runway project involves constructing a 2,100-meter by 45-meter runway with additional safety areas, accommodating A320/B737 aircraft. Significant earth movement and removal of lava stones are required, with cost estimates from 2008 being MUR 5.7 billion (USD 130 million), potentially higher now. The mission stressed the need for an early assessment to meet the planned Board date in June 2023.

The mission recommended installing an Instrument Landing System (ILS) and designing RNAV approaches for the new runway, alongside a new air traffic control (ATC) tower with necessary equipment, including an ADS-B receiver to enhance surveillance and safety. CES advised against bundling unrelated procurement items to avoid increased costs.

The economic impact of a new runway on Rodrigues Island was also discussed. While difficult to quantify precisely, it is clear that a longer runway would enable flights from more distant locations, attracting foreign investment and tourism, potentially boosting the local economy. However, sustainable resource management, including water and power, is crucial.

The mission concluded with several recommended investments and actions: preparing a National Aviation Sector Policy, acquiring new fire tender and equipment for RFFS, executing a detailed geological survey for the new runway, designing and installing ILS and RNAV approaches, and studying the installation of an ADS-B system. Additionally, RRG should join the ACI Carbon Accreditation Program.

The project has recently been approved by the Government of Mauritius, and the Loan Agreement is due to be signed before the end of Q3 of FY2024, with effectiveness expected shortly thereafter. The project’s likelihood of achieving its implementation progress is also considered satisfactory, with preparatory studies, including the completion of the detailed design, nearing finalization.

This development is expected to significantly enhance connectivity for Rodrigues by reducing travel costs and time, facilitating cargo transport, and providing direct international routes to nearby countries. It is anticipated to be a transformative project for the island, espe-
cially since most current flights to Rodrigues require connections or transfers through Mauritius Island.

Contact persons are Edward Beukes at ebeukes@worldbank.org, Marc Navelet at mnavelet@worldbank.org, and Wei Yan at weiyan@worldbank.org.

RWANDA
Great Lakes Trade Facilitation Project (P151083)

The World Bank approved the Great Lakes Trade Facilitation Project on 25 September 2015 with an IDA Credit of USD 101.88 million. The project aims to facilitate cross-border trade by increasing the capacity for commerce and reducing the costs faced by traders, especially small-scale and women traders, at targeted locations in the borderlands of the Great Lakes Region (GLR).

The aviation aspect of the project includes the improvement of Kamembe Airport in Rwanda, with a focus on enhancing safety, navigation, and communication systems. This includes the construction of an airport perimeter fence and the installation of a CCTV security system. Additionally, the project supports the improvement of core trade infrastructure and facilities in the border areas, the implementation of policy and procedural reforms, capacity building to facilitate cross-border trade in goods and services, performance-based management in cross-border administration, and implementation support, communication, and monitoring and evaluation.

A virtual implementation support mission was carried out by a World Bank team in December 2021 to review the progress of the project. The team met with various officials to discuss the implementation status, including large civil works contracts, annual work plan and budget, environment and social safeguard instruments, financial management, and monitoring and evaluation reporting.

The project has achieved critical milestones, with full disbursement of credits to Rwanda and Uganda and 86% disbursement in the DRC. The overall implementation progress and progress towards achieving the project development objective have been rated as moderately satisfactory, while the overall risk rating is high. The project has also fostered an established dialogue on trade integration between the three project countries, particularly between DRC, Rwanda, and Uganda.

Significant accomplishments include the completion of several civil works contracts, such as the rehabilitation of Kamembe Airport, Nyamasheke market, and one-stop border posts. These improvements have enhanced border crossing conditions and facilitated trade in the region.

The project has also emphasized capacity building for agencies and traders at the border to improve governance, reduce levels of harassment, and enhance the efficiency and security of border operations.

Contact person is Magueye Dia at mdia1@worldbank.org.

SOUTH AFRICA
South Africa Trade and Connectivity Project (P164847)

The Southern Africa Trade & Connectivity Project, with a funding of USD 380 million, was approved by the World Bank on 27 April 2021 and declared effective on 24 September 2021 in Mozambique and on 6 October 2021 in Malawi. The project's development objective is to support Malawi and Mozambique in increasing regional trade coordination, reducing trade costs and time, developing regional value chains, and improving access to infrastructure.

This regional operation serves multiple trade and transport corridors, including investments along the Nacala and Beira Corridors connecting Mozambique to Malawi, and the Maputo Corridor connecting Mozambique to South Africa through Ponta do Ouro.

Building on the best operational and analytical evidence, the project employs an infrastructure-plus approach, combining the upgrade of border posts, information and communications technology (ICT) investments, roads upgrading, and targeted trade-related reforms and value chain development to advance regional integration. It aims to unlock the region's vast economic trade potential by improving physical connectivity, logistics efficiency, creating jobs, and activating investment opportunities for the private sector in agriculture and developing regional value chains.

These joint project investments and activities are expected to yield substantial economic benefits, including increased regional trade, income growth, job creation, and resilience. Positive economic spillovers should also benefit other countries in the sub-region.
In Mozambique, the consultancy contract for the Civil Aviation Master Plan has been concluded. The Civil Aviation Master Plan incorporates a climate lens to ensure climate-resilient and sustainable policies and infrastructure, energy efficiency and transformation, and climate adaptation and resilience.

Contact persons are Ankur Huria at ahuria@worldbank.org, Laurent Olivier Corthay at lcorhay@worldbank.org, and Monica Augustina Cristin Moldovan at mmoldovan@worldbank.org.

**TANZANIA**  
**Transport Integration Project (P165660)**

On 24 May 2022, the World Bank approved an International Development Association Credit of USD 550 million to Tanzania for the Transport Integration Project. This project aims to enhance the safety, climate resilience, and capacity of pivotal road corridors and regional airports, alongside strengthening the capabilities of transport sector institutions in planning and management. The project is divided into four primary components: (i) Upgrading and Rehabilitation of Trunk and Regional Roads, (ii) Upgrading and Rehabilitation of Regional Airports, (iii) Institutional Support and Capacity Building in the Transport Sector, and (iv) Contingent Emergency Response.

The second component, under the Transport Support Project (TSSP), focuses on the rehabilitation and upgrading of three key regional airports: Lake Manyara, Iringa, and Tanga. These airports were selected based on their vulnerability to climate change impacts and their potential to provide long-term climate-resilient services. The enhancement initiatives include improving climate resilience, energy efficiency, and airport safety, as well as expanding airport capacity to align with international safety standards and accommodate future demands from tourism and commerce.

Additionally, this component supports the enhancement of air navigation and meteorological facilities, construction supervision, and necessary land acquisition, resettlement, and rehabilitation. The allocated IDA credit will primarily fund the construction of climate-resilient structures and energy-efficient implementations, with the Tanzanian government bearing the costs of land acquisition, resettlement, and rehabilitation.

Specific upgrades at the individual airports include:

- **Lake Manyara Airport:** Upgrading from Code 2B to a Code 2C airport, including resurfacing the runway, constructing a new passenger terminal with a control tower, and installing aeronautical ground lighting and other safety equipment.

- **Iringa Airport:** Improvements to stimulate tourism in Ruaha National Park and support the surrounding agricultural region. Upgrades to achieve full Code 3C status, including rehabilitation of the runway, taxiway, and apron, and construction of a passenger terminal with a control tower.

- **Tanga Airport:** Rehabilitation of the deteriorating asphalt runway and improvements to ensure safety, alongside the construction of a new passenger terminal and control tower.

The project is a strategic initiative to bolster Tanzania’s transport infrastructure, catering to the growing demand in tourism and commercial sectors while addressing climate change challenges and safety concerns.

As of FY2023, the procurement process for the Civil Works packages and Supervision consultancy contracts is ongoing, with an initial expectation for contract awards by mid-April. However, due to delays attributed to the government’s internal processes, the anticipated timeline for the contract awards has been adjusted to around May.

Additionally, there have been delays in the disclosure of environmental and social (E&S) instruments for Iringa and Lake Manyara. Specifically, the Environmental and Social Impact Assessment (ESIA), Biodiversity Management Plan (BMP), and Natural Resources Management Plan (NMP) are still under preparation by the government.

These documents are crucial for ensuring that the projects adhere to environmental and social standards and mitigate any potential impacts. The completion and disclosure of these E&S instruments are essential steps in the project’s progression, and the team is in continuous communication with the relevant governmental bodies to expedite this process.

Contact persons are Nana Soetantri at nsoetantri@worldbank.org and Aymen Ahmed Osman Ali at aali15@worldbank.org.
MIDDLE EAST & NORTH AFRICA

Project Highlights
IRAQ
Aviation Sector Reform and Baghdad Airport
(P178995)

The Aviation Sector Reform and Baghdad Airport project is currently in the pipeline with the objective of overhauling and modernizing Iraq’s aviation industry, particularly focusing on enhancing Baghdad Airport. It comprises two principal elements:

(i) Institutional Reform: This involves establishing a Civil Aviation Board, enacting a new civil aviation law, strengthening the Iraqi Civil Aviation Authority, and fostering private sector involvement. The objective is to improve sector governance and ensure long-term viability through transparent financing.

(ii) Infrastructure and Service Improvement: This involves critical investments to address safety and capacity deficits in airport infrastructure and operations, particularly at Baghdad Airport. It also aims to reorganize Iraqi Airways to comply with international safety standards and improve its market competitiveness.

The anticipated outcomes of the project include: (i) improved governance and regulatory framework in the aviation sector; (ii) enhanced airport infrastructure in terms of safety and capacity; (iii) increased efficiency and service quality at Baghdad Airport; (iv) expanded market presence of Iraqi Airways; and (v) greater connectivity and accessibility for passengers and cargo. Ultimately, the project aims to foster growth in Iraq’s aviation sector, create economic opportunities, and contribute to the development of the nation’s transportation infrastructure.

Contact person is Soran Hama Tahir at sali7@worldbank.org.
**BOLIVIA**

National Roads and Airport Infrastructure Project (P122007)

In FY2011, the World Bank approved a USD 109.5 million IDA Credit for the Bolivia National Roads and Airport Infrastructure Project, which became effective in FY2012. The project has undergone multiple extensions, with the latest extension granted in August 2022, pushing the completion date to 2 August 2023. This extension was necessary to fulfill the Project Development Objective (PDO) and complete critical safeguard activities. The PDO aims to improve the year-round transitability of the San Buenaventura-Ixiamas national road and enhance the safety, security, and operational reliability of the Rurrenabaque Airport.

The project consists of three main components: (i) improving the San Buenaventura-Ixiamas national road, (ii) improving the Rurrenabaque Airport, and (iii) institutional strengthening of the Road Agency (ABC) and the Airport Authority (AASANA), and other relevant entities.

The first phase of the airport improvement, initially implemented by AASANA until November 2021 and then by NAABOL (the new air navigation and airports authority), includes the construction of a terminal building, control tower, technical buildings, access road, taxiway, and apron. The first phase was completed in the third quarter of FY2022. The second phase, which includes additional civil works and equipment for the airport’s operation, was expected to be completed by the end of July 2023. This phase involves environmentally sensitive activities, such as clearing land to ensure visibility of the runway from the control tower, which require an environmental assessment and mitigation plan.

Contact persons are Tatsuo Harada at tharada1@worldbank.org, and Gylfi Palsson at gpalsson@worldbank.org.

**GRENADA**

Caribbean Regional Air Transport Connectivity Project (P172951)

On 28 May 2020, the World Bank approved a financial package for the Grenada Caribbean Regional Air Transport Connectivity Project, amounting to a USD 17 million International Development Association Credit. The project development objectives are three-fold: (i) to improve the operational safety and navigation efficiency of air transportation, (ii) increase the climate and disaster resilience of the Maurice Bishop International Airport (MBIA), and (iii) strengthen Grenada’s capacity in civil aviation and airport management.

This project is structured into four key components:

(i) **Operational Safety and Resilience Enhancement:** This component aims to bolster the operational safety and resilience at MBIA and support Grenada’s compliance with International Civil Aviation Organization Standards and Recommended Practices, in line with the commitments of the Port of Spain Declaration.

(ii) **Technical Assistance and Capacity Building:** This component focuses on reinforcing the institutional capacity of the Grenada Airports Authority (GAA) and the Civil Aviation Division. This will be achieved through a combination of regional and Grenada-specific technical assistance, alongside capacity-building activities. These measures are
intended to enhance various facets such as aircraft operational safety, regulatory oversight of the air transport sector, airport management capabilities, climate and disaster resilience, and promoting gender diversity in the workplace.

(iii) **Project Management**: This component supports project management by providing staff for essential roles encompassing overall project coordination, technical specialists, and those responsible for social and environmental safeguards, procurement, financial management, as well as annual audits.

(iv) **Contingent Emergency Response**: This component is designed to provide an immediate response in the event of an eligible emergency.

The Ministry of Infrastructure and Physical Development, Public Utilities, Civil Aviation, and Transportation, which emerged from the amalgamation of the Ministry of Infrastructure Development, Public Utilities, Energy, Transportation, and Implementation (MOIID) and the Ministry of Tourism and Civil Aviation (MOTCA), oversees this project. The Grenada Airport Authority, responsible for MBIA, collaborates closely on technical matters.

As of June 2023, the project’s implementation is progressing, albeit at a gradual pace. Discussions are underway between the World Bank and the Borrower to prepare for a mid-term review slated for October 2023. This review is expected to assess the progress made and determine necessary follow-up actions.

Contact persons are Tatsuo Harada at thanrad1@worldbank.org and Rohan Shah at rshah9@worldbank.org.

**HAITI**

**Caribbean Regional Air Transport Connectivity Project (P170907)**

On 28 May 2020, the World Bank approved an IDA Grant amounting to USD 84 million for the Haiti Caribbean Regional Air Transport Connectivity Project. The project development objectives are twofold: first, to enhance operational safety and efficiency in air navigation, and second, to augment the resilience of pertinent infrastructure at Haiti’s international airports against climate-related and other disasters.

This project is structured around four distinct components. The first component focuses on improvements at the Toussaint Louverture Airport in Port-au-Prince (PAP) and the Cap-Haitian International Airport (CAP). The upgrades aim to elevate aircraft operational conditions to meet global safety benchmarks set by ICAO Standards and Recommended Practices (SARPs) and the National Office of Civil Aviation of Haiti (OFNAC), particularly Annex 6. Additionally, the project aims to boost the efficiency of navigation and taxiing to better manage current traffic and potential surges, especially during post-disaster relief operations. Key initiatives include the rehabilitation of the CAP runway, expansion of the PAP taxiway and aircraft parking, construction of runway end safety areas at PAP as per ICAO requirements, development of a new air traffic control tower at CAP, and enhancement of communication and surveillance technology, including the implementation of Automatic Dependent Surveillance–Broadcast (ADS-B) systems at both PAP and CAP.

The second component addresses the perennial issue of airfield flooding exacerbated by the annual rainy season, hurricanes, and climate change at both PAP and CAP. The approach includes augmenting drainage capacity to improve resilience against climate and disaster scenarios. The third component targets the Ministry of Public Works, Transportation and Communication, the National Aviation Authority (NAA), and OFNAC. It encompasses a range of Technical Assistance (TA) activities and training programs to enhance the management, operation, and supervision of airport operations and development. This also involves assessing the feasibility and potential applications of Unmanned Aircraft Systems (UAS) in Haiti, shaping the legal framework for their use, and assisting in the development of logistical and supply chain solutions. A notable emphasis of this component is on enhancing operational safety, regulatory oversight in the air transport sector, quality of aircraft management, operations and maintenance, and fostering resilience and gender diversity within the aviation sector. The fourth component supports overall project coordination, technical specialists, social and environmental safeguards, procurement, financial management, and annual audits.

As of June 2023, the project implementation has been progressing with moderate challenges due to the complex political, security, and macroeconomic context of Haiti. Significant progress includes the mobilization of the Airport Management Organization (AMO) as of January 2023, following an extensive
procurement process, and the recent appointment of an Airport Infrastructure Specialist in June 2023. With these additions, the Project Implementation Unit (PMU) is expected to accelerate the initiation of civil works. Ongoing institutional strengthening activities include a gender assessment, the formulation of a training plan, and the establishment of a surveillance authority.

Contact persons are Malika Becoulet at mbecoulet@worldbank.org and Xavier Espinet Alegre at xespinetalegre@worldbank.org.

SAINT LUCIA
Caribbean Regional Air Transport Connectivity Project (P170860)

On 28 May 2020, the World Bank approved an IDA Credit of USD 45 million for the Saint Lucia Caribbean Regional Air Transport Connectivity Project. The project development objective is to address operational safety and navigational shortcomings in air transport, and to strengthen the airport infrastructure in Saint Lucia against natural disasters.

The project encompasses five distinct components:

(i) **Enhancement of Safety and Resilience of the UVF (Hewanorra International Airport) Runway:** This includes runway rehabilitation and upgrades, incorporating advanced systems like LED lighting, the construction of paved stopways and Runway End Safety Areas (RESAs), improvements in airfield drainage and flood protection, and enhancements of the Crash Fire Rescue facilities. Technical support will be provided for design, supervision, and environmental and social safeguards.

(ii) **Modernization of Air Navigation Systems:** This involves the procurement of necessary equipment like Instrument Landing Systems (ILS) and ADS-B. It includes the acquisition of ground stations, antennas, control tower monitors, and onboard transmitters for aircraft based in Saint Lucia.

(iii) **Strengthening Institutional Capacity:** This component includes a series of technical assistance activities, both regional and specific to Saint Lucia. These activities encompass a comprehensive analysis of airport management, capacity building in various aspects of airport and air traffic control management, promotion of female professionals in the sector, development of a medium-term recovery strategy post COVID-19, and an assessment of unmanned aircraft systems utilization.

As of June 2023, notable progress in the implementation of the project includes the engagement of a consultant for the design and supervision of runway works, the scheduled commencement of Airport Rescue and Firefighting Facility civil works in July 2023, completion of a COVID-19 study with ongoing evaluation of its recommendations, and ongoing assessment of the Air Navigation System. The findings from this assessment, expected to be completed in early 2024, will inform the procurement process for Component 2. An upcoming Mid-Term Review mission in Fall 2023 will evaluate the overall progress and finalize the implementation plan for runway civil works.

Contact persons are Malika Becoulet at mbecoulet@worldbank.org and Xavier Espinet Alegre at xespinetalegre@worldbank.org.

SINT MAARTEN
Sint Maarten Airport Terminal Reconstruction Project (P167974)

On 18 September 2019, the World Bank approved a grant of USD 72 million from the Sint Maarten Hurricane Irma Reconstruction, Recovery, and Resilience Trust Fund (TF) for the Sint Maarten Airport Terminal Reconstruction Project. The Project Development Objective is to reinstate the passenger capacity of Princess Juliana International Airport (PJIA) to pre-Hurricane Irma levels and enhance its resilience to future hurricanes. The broader airport program includes rebuilding the passenger terminal, air traffic control tower, firefighter facilities, relocation of the fuel farm, and runway rehabilitation. However, the primary focus, as specified by the Government of Sint Maarten (GoSM), is the terminal reconstruction of the existing building structure.

The project encompasses four key components:

(i) **Reconstruction of the PJIA Terminal Facilities:** This component is dedicated to restoring PJIA terminal facilities, aiming to reestablish airport function and enhance hurricane resilience. This involves reinstating terminal facilities and reinstalling equipment such as passenger boarding bridges, entrance doors, dry walls, furniture/counters, electrical and IT systems, baggage handling systems, security installations, and firefighter facilities.

(ii) **Capacity Building and Project Management by PJI-AE:** This component finances the Project Management Unit, which is responsible for implementing the project in accordance with the Bank’s environmental, social, procurement, and fiduciary standards.
(iii) Capacity Building and Project Management by the Government of Sint Maarten: This component is designed to bolster the capacities of GoSM and the Airport in areas like airport management and governance.

(iv) Support of PJIAE Operations: This component provides on-demand financial and liquidity support for the operations of Princess Juliana International Operating Company N.V. during the construction phase.

In December 2021, additional financing of USD 20 million was sanctioned under P177416 to address unforeseen cost overruns. This additional funding is crucial to complete the original project activities, especially the terminal facilities reconstruction, to achieve the PDO of restoring PJIA’s passenger capacity with enhanced hurricane resilience. The original project funding was based on preliminary cost estimates from 2018, prior to the completion of the design phase. The total project cost now stands at USD 149 million, financed through a combination of a USD 92 million Bank-administered TF Grant, a USD 50 million loan from the European Investment Bank, and USD 7 million in counterpart funds. Approximately USD 126 million is allocated for the reconstruction works under the first component.

As of the end of FY2023, the World Bank approved an 18-month extension from 31 December 2023 to 30 June 2025, at the request of the GoSM, to enable the completion of project activities and the full realization of the PDO. Key developments include the signing of the contract for Component 1—Terminal Reconstruction: Package 2 in August 2021, with works commencing on 4 October 2021. All seven Equipment Packages are under contract implementation. Component 2—Technical Assistance (TA) for PJIAE reports full staffing and mobilization of the Project Management Unit, financing specialists, and project audits. Component 3—TA for NRPM has seen no expenditure to date, but a training plan has been developed and implementation is expected to commence in Q3 2024. Component 4—Operational Expenditure (OPEX) Support includes verified and approved liquidity support disbursed for various quarters on a reimbursement basis.

Contact persons are Tatsuo Harada at tharada1@worldbank.org and Rohan Shah at rshah9@worldbank.org.
EUROPE & CENTRAL ASIA

Project Highlights
The World Bank approved a USD 27.5 million IDA Grant and an equal amount in IDA Credit for the Central Asia Regional Links Program in October 2018. This initiative aims to enhance regional connectivity and foster long-term tourism in Issyk-Kul Oblast. The program comprises three main components: (i) Regional Connection with Associated Facilities and Equipment, (ii) Aviation Safety and Service Provision, and (iii) Sustainable Tourism Development.

Support extended to the Civil Aviation Agency is a significant aspect of this project, aiming to align with ICAO SARPs. This alignment is crucial for lifting the EU’s blacklist on Kyrgyz carriers, thereby opening growth opportunities for local carriers and enhancing the country’s overall connectivity. The improvement is expected to benefit both the local population and international tourists.

A World Bank team participated in the third phase of the Central Asia Regional Links Program (CARs-3) supervision mission, focusing on regulatory oversight in aviation. The Kyrgyz Civil Aviation Agency (SCAA) informed the mission of an upcoming ICAO Safety Audit scheduled for September 2023. Given that all Kyrgyz-certified air carriers are currently on the EU Safety List, the SCAA sought the project's assistance in preparing for the audit.

Discussions with the UK Civil Aviation Authority International (CAAI), the contracted consultants, revealed progress on the review of Kyrgyzstan's State Safety Program (SSP). The final drafts of the SSP and the Regulatory Legal Act have been delivered, with the final report and training plan still pending. Training on Safety Management Systems (SMS) was ongoing.

The mission suggested extending CAAi’s mandate to support SCAA in reviewing its organizational structure, defining IT system needs, and providing coaching during the ICAO audit. Additional needs such as office equipment, accident investigation tools, and aerodrome certification tools were discussed, with further analysis required to determine which requests could be addressed.

As of 11 November 2023, the project has shown considerable progress. Component 1 has successfully mobilized contractors, and components 2 and 3 have advanced in their respective assignments. In particular, component 2 has achieved a milestone with CAAi submitting the final report on the State Safety Program review. Concurrently, support to the Kyrgyz Aviation Institute is progressing well, with substantial completion of repairs to its facilities.

Contact persons are Muhammad Zulfiqar at zulfiqar@worldbank.org, and Yevhen Bulakh at ybulakh@worldbank.org.
SOUTH ASIA
Project Highlights
PAKISTAN
Hydromet and DRM Services Project (P163924)

In May 2018, the World Bank approved USD 188 million in IDA financing for Pakistan’s Hydro-Meteorological and Disaster Risk Management Services Project (PHDSP). The goal of this project is to enhance Pakistan’s capacity to deliver reliable and timely hydro-meteorological and disaster risk management services, with a key focus on improving aviation meteorological services to meet the demands of the Pakistan Civil Aviation Authority, particularly for more advanced and automated forecasting for flight operations.

In May 2020, the project’s scope was restructured and renamed the Pakistan Hydromet and Climate Services Project (PHCSP). The PHCSP is structured into three main components. The first component includes institutional strengthening and capacity building, modernizing observation infrastructure, enhancing service delivery by the Pakistan Meteorological Department (PMD), and project management. The second component focuses on addressing climate shocks through the National Disaster Risk Management Fund (NDRMF). The third component, the Contingent Emergency Response Component (CERC), is designed to facilitate rapid responses to climate-related and natural disasters.

By the end of FY2023, the project experienced significant implementation delays. In response to extraordinary monsoon rains and flooding, the government activated the CERC to aid the flood-affected population. Consequently, the project underwent restructuring to align with revised development objectives and accommodate progress in implementation.

Contact persons are Ahsan Tehsin at atehsin@worldbank.org and Christopher James Warner at cwarner@worldbank.org.
EAST ASIA & PACIFIC

Project Highlights
The Pacific Aviation Safety Office Reform (PASO) project, approved with a USD 2.15 million IDA Grant in FY2014 by the World Bank, aimed to enhance aviation safety and security in the Pacific region. Subsequent additional funding included USD 0.95 million from the Pacific Region Infrastructure Facility (PRIF) in FY2017 and USD 3.55 million from IDA in FY2018, reflecting the project’s evolving scope and objectives.

The revised Project Development Objective aimed to bolster the Pacific Aviation Safety Office, a key regional entity providing safety oversight, technical, and advisory services to Pacific Island countries. The project encompassed four main components: (i) Transitional Management and Support, (ii) Establishment of a Pool of Regional Aviation Inspectors, (iii) Quality Management, and (iv) Support for Regional Aviation Infrastructure.

Throughout its implementation, the PASO project underwent five phases of restructuring. These included additional financings, extensions of the project’s closing dates to accommodate new financing modalities, and modifications to its components and activities. These changes were necessary to meet investment expectations, complete infrastructure work in specific island nations, and adapt to challenges such as COVID-19.

Key organizational reforms were implemented, including a revised governance structure for PASO to ensure adequate staffing and effective management. This included appointing key managerial positions and a transition manager to oversee the organizational changes. PASO also worked towards achieving various levels of Regional Safety Oversight Organization (RSOO) status as per the Global Aviation Safety Plan (GASP) developed by ICAO. While PASO has achieved a Level 1 RSOO status, it is working toward becoming a Level 2 RSOO.

The PASO Reform Project has played a crucial role in establishing a clear strategic direction for the Pacific aviation sector. This encompasses the Pacific Regional Aviation Strategy (PRAS) 2023-2032, which aims to align Pacific states with ICAO safety and security standards while supporting regional compliance. Furthermore, PASO has broadened its services to include surveillance support, audits, entry-into-service support, and aviation meteorological assistance.

The project has significantly contributed to the climate resilience of the aviation sector. Investments in installing VSAT communications systems, training, and safety enhancements have bolstered resilience, particularly during extreme weather events, thus ensuring operational safety and strengthening the sector’s capacity to handle adverse weather conditions. The project closed on 31 December 2022.

SAMOA
Samoa Aviation and Roads Investment Project (SARIP) (P176272)

On 1 June 2022, the World Bank approved the Samoa Aviation and Roads Investment Project with a USD 66 million IDA Grant. The Project Development Objective is to improve the climate resilience and safety of Samoa’s aviation and road sectors, and in case of an eligible crisis or emergency, respond promptly and effectively to it.

The project has four components: (i) Climate Resilience and Safety Investment in the Aviation Sector, (ii) Climate Resilience and Safety Investment in the Road Sector, (iii) Strengthening the Enabling Environment, and (iii) Contingent Emergency Response. The Samoa Airport Authority (SAA) has a fully staffed Project Implementation Unit, which is responsible for the implementation of activities under Component 1 as well as Component 3.

The Samoa Airport Authority (SAA) has a fully staffed Project Implementation Unit responsible for implementing activities under Components 1 and 3. Notably, the obstacle limitation survey, which is a periodic requirement with the last one conducted in 2017, is incomplete and will inform the location of the new boundary fence and instrument landing system to be purchased under SARIP. The procurement process for the new Automatic Weather Station has commenced.

Plans are underway to develop a flood resilience strategy and stormwater drainage master plan to guide drainage improvements and seawall rehabilitation at Faleolo International Airport. Updates are also planned for the Master Plan and Business Plan for SAA and the Aviation Sector Strategy for the Civil Aviation Department. These documents will consider climate resilience principles to inform the design, construction, op-
eration, and maintenance of airport assets, increase disaster preparedness and response to extreme weather and climate events, and develop a business plan to maintain critical services during disruptions and shocks.

Additionally, SAA has identified gaps within the organization in technical and resource management areas and proposed training to build capacity to: (i) better implement the project, and (ii) better manage the aviation sector. Some training programs have already commenced.

Contact persons are Keelye Hanmer at khanmer@worldbank.org, and Naoki Kakuta at nkakuta@worldbank.org.

**SOLOMON ISLANDS**

**Solomon Islands Roads and Aviation Project (P166622)**

In March 2019, the Solomon Islands Roads and Aviation Project (SIRAP) received a financial package comprising a USD 30.5 million equivalent IDA Credit, a USD 20.5 million equivalent IDA Grant, and an additional USD 3.6 million from the Solomon Islands Government. The Project Development Objective (PDO) is to improve the operational safety and oversight of air transport and associated infrastructure, strengthen the sustainability and climate resilience of the project’s roads, and provide an immediate response to an eligible crisis or emergency.

The PDO is to be achieved through the following five components: (i) **Honiara and Munda Airports Infrastructure Investments**, (ii) **Malaita Road Improvement and Maintenance Program**, (iii) **Institutional Strengthening**, (iv) **Project Implementation Support**, and (v) **Contingent Emergency Response**. The Ministry of Communication and Aviation (MCA) implements the aviation components.

The Ministry of Communication and Aviation (MCA) implements the aviation components. Key achievements in relation to infrastructure investments include the opening of a new international and domestic terminal building and the upgraded runway, taxiway, and apron at Munda Airport on 10 October 2023. As part of SIRAP’s objective to improve operational safety and oversight of air transport and associated infrastructure, the project delivered a new terminal building and upgrades to enhance the climate resilience of the 2,100m long runway, taxiway, and apron. These improvements provide a gateway for international flights directly to the Western Province, creating immense opportunities for tourism, trade, and business, as well as providing an alternative emergency international airport for Honiara. The SIRAP investments led to the resumption of Solomon Airlines’ direct flights from Brisbane to Munda on 6 January 2024.

Institutional strengthening in the aviation sector is a significant aspect of SIRAP. Key achievements in this area include the completion of: (i) the Solomon Airlines strategy review in October 2019, (ii) the Honiara and Munda Airports master plans in March 2020, (iii) the Aviation Sector Strategy in October 2020, (iv) the Solomon Airlines Strategic Options Analysis in May 2021, (v) the Solomon Airlines Strategic Planning Workshops in December 2023, and (vi) the training needs assessment for MCA, Civil Aviation Authority of Solomon Islands (CAASI), Solomon Islands Airport Corporation Limited (SIACL), and Solomon Airlines in January 2024. In addition, ADS-B ground stations and very small aperture terminal (VSAT) communications system have been installed at Honiara and Munda Airports.
SOLOMON ISLANDS
Second Solomon Islands Roads and Aviation Project (P176548)
On 1 June 2022, the World Bank approved the Second Solomon Islands Roads and Aviation Project (SIRAP2) with a USD 67.69 million equivalent IDA Credit and USD 21.5 million equivalent IDA Grant. The Project Development Objective is to improve the climate resilience and safety of the Solomon Islands’ road and aviation sectors, and in case of an Eligible Crisis or Emergency, respond promptly and effectively.

SIRAP2 builds upon the Solomon Islands Roads and Aviation Project (SIRAP, P166622) and has four components:

(i) **Climate Resilience and Safety Investments in the Aviation Sector:** This component, implemented by the Ministry of Communication and Aviation, finances the following activities: (a) improvements to Honiara International Airport in Guadalcanal Province; (b) modernization of air navigation systems in Makira-Ulawa and Temotu Provinces; and (c) multiyear performance-based maintenance of critical mechanical and electrical assets at the two international airports.

(ii) **Climate Resilience and Safety Investments in the Road Sector:** This component focuses on similar enhancements in the road sector.

(iii) **Institutional Strengthening and Project Management:** This component includes technical assistance for the design and supervision of civil works, preparation of a national airport’s development plan, and training to improve aviation safety and security.

(iv) **Contingent Emergency Response:** This component is designed to provide immediate response capabilities in the event of a crisis or emergency.

A notable aspect of SIRAP2 is its commitment to regional airport maintenance through a multiyear performance-based contract, which is part of the Safety of Aviation for Regional Resilience initiative, focusing on enhancing resilience and safety in airport infrastructure across the region.

SIRAP2 is in its second year of a seven-year implementation period. Key achievements in the aviation components to date include: (i) the Honiara Airport runway resurfacing and airfield ground lighting works commenced on 21 June 2023; (ii) the design and supervision consultancy started on 13 April 2023, with most design reports completed; (iii) the contract with the Honiara Airport equipment supplier was signed on 25 September 2023; (iv) the Request for Bids for Santa Cruz Airfield works was issued on 21 December 2023; (v) the Request for bids for Honiara Airport standby generators was issued on 29 January 2024; and (vi) the contract with ADS-B/VSAT Specialist was signed on 11 September 2023.

Additionally, bidding documents for the following aviation activities are under preparation: (i) design and construction of a rescue fire service vehicle station at Honiara Airport, (ii) installation of an automated weather observation station at Honiara Airport, (iii) design and construction of an air traffic control tower (including the provision of air traffic control equipment) at Honiara and Munda Airports, and (iv) replacement of the perimeter fence at Honiara Airport.

Contact persons are Keelye Hanmer at khanner@worldbank.org, and Naoki Kakuta at nkakuta@worldbank.org.

TONGA
Climate Resilient Transport Project (P161539)
In November 2018, the World Bank approved a USD 26 million IDA Grant for the Tonga Climate Resilient Transport Project (TCRTP). The primary aim of this project is to enhance the resilience of Tonga’s transport sector to climate impacts and provide immediate response capabilities in the event of crises or emergencies. The success of this project is measured by several indicators: the availability of climate resilience planning tools, the construction and utilization of climate-resilient investments in aviation and maritime sectors, the implementation of enabling environment solutions, the extent of roads constructed or renovated with climate resilience features, and the establishment and execution of climate-resilient routine maintenance contracts.

A key component of the TCRTP focuses on rehabilitating aviation infrastructure to withstand climate-related hazards. This includes feasibility studies, design, and construction work on specific aviation assets, along with the urgent resurfacing of the runway and apron at Ha’apai’s Salote Pilolevu Airport. The project encompasses the reconstruction of pavement layers, subsoil drainage, and full line marking. The resurfacing of the runway at Salote Pilolevu Airport, Ha’apai, was completed in August 2023, three years after the contract signing.

Another critical component of the project aims to strengthen the enabling environment by hiring a technical advisor for aviation. This advisor will support urgent safety audits and provide implementation assistance for both TCRTP and its subsequent phase, TCRTP II.

As of 13 October 2023, 54% of the funds have been
disbursed, with a commitment rate of 98.7%. The remaining uncommitted funds (~1.3%) will be used for hiring an aviation technical writer and for contingencies related to ongoing work contracts. Implementation progress is on track, and all activities are expected to be completed by the current closing date of 31 December 2024.

Contact person is Satoshi Ogita at sogita@worldbank.org.

TONGA
Climate Resilient Transport Project II
Project (P176208)

In December 2021, the World Bank approved an IDA Grant of USD 38 million for the second phase of the Tonga Climate Resilient Transport Project. The primary goal of this project is to enhance the resilience and safety of Tonga’s transport sector against climate-related adversities and to establish a robust and efficient response mechanism in case of a recognized crisis or emergency. The project is structured into four main components: (i) Strengthening of Transport Planning and Policy Capacities, (ii) Implementation of Climate Resilient and Safe Infrastructure Solutions, (iii) Effective Project Management, and (iv) Provision of a Contingency Emergency Response. The second component encompasses comprehensive feasibility studies, detailed designs, and civil works to bolster climate resilience and safety.

Following a World Bank mission in October 2023, progress has been made in the aviation components. The design and supervision contracts for aviation works have been signed and are advancing. The final design report is expected by mid-November 2023, with work set to commence between May and October 2024 during the dry season. Additionally, two tractors and a bird monitoring vehicle have been delivered to the Ministry of Infrastructure (MOI) and will be handed over to TAL. Vava’u Airport will receive one bird monitoring vehicle, and Niutoputapu and Niufo’ou islands will each receive a tractor.

Fire trucks yet to be procured for TAL include one category-5 fire truck for Vava’u Airport and two TACR -D trucks for Ha’apai and ‘Eua airports. The RFQ for the fire trucks, safety, and maintenance equipment is currently being prepared, with the aim of purchasing and delivering them by the end of August 2024. Storage sheds will also be purchased for Niutoputapu, Niufo’ou, and ‘Eua. MOI will work with TAL to develop the technical specifications for the sheds. For the Niulas, the need to replace the existing terminal shed will be considered as part of the works. The project plans to transport the materials in conjunction with other activities to manage costs efficiently, given the remoteness of the Niulas.

The World Bank team also discussed with the PMU and TAL the need to update the registry of airport equipment and assets to identify maintenance or replacement needs. This will support the establishment of a regional airport asset maintenance strategy.

For Component 3, the engagement of a technical advisor for aviation has been pivotal in conducting urgent safety audits and providing implementation support for both TCRTP1 and TCRTP2. The previous aviation advisor’s contract under TCRTP expired on 23 May 2023, and CAD will require various specialized support services in areas such as aviation security and navigation aids to implement the corrective action plan following the recently concluded ICAO USAP CMA. The terms of reference for the new advisor were reviewed by the World Bank at the end of October 2023, and the advisor is expected to be on board by November 2023.

Contact persons are Satoshi Ogita at sogita@worldbank.org.

TUVALU
Pacific Aviation Investment Project
(P128940)

The Tuvalu Aviation Investment Project (TvAIP), a key component of the Pacific Aviation Investment Program (PAIP), was initiated on 13 December 2011 and came into effect on 20 March 2012. The project was initially funded with USD 12.02 million, consisting of USD 11.85 million from IDA and USD 0.17 million from the Pacific Regional Infrastructure Facility (PRIF). It underwent four subsequent rounds of Additional Financing (AFs) in 2013, 2016, 2017, and 2021, bringing the total approved funding to USD 35.7 million. The additional funds were allocated to address various project needs, including infrastructure improvements, sector reform, and training. The primary objective is to enhance the safety and security of air transport and related infrastructure.

The project’s components were threefold: investment in aviation infrastructure, reform and training in the aviation sector, and strengthening of airport operations. Each AF had specific objectives: (i) the 2013 AF aimed at expanding TvAIP to include road resurfacing to Funafuti Airport and constructing a water cistern under the new terminal; (ii) the 2016 AF was introduced to close a funding gap and extend deadlines for all funding sources; (iii) the 2017 AF focused on repairing runway damages caused by water pressure, along with financing supervision costs, participation in ICAO, addressing gender-based violence and child safety, and training in environmental and social management; and (iv) the 2021 AF addressed cost overruns in runway rehabilitation at Funafuti Airport.

The original project completion date of 31 December 2016, was extended to 15 June 2023, following the additional funding. This extension was crucial for the
Government of Tuvalu to prepare for a new World Bank-funded project, ensuring adequate funding for the proposed rehabilitation of Funafuti Airport’s runway. By 2019, most project activities had been completed, except for the runway rehabilitation and airport certification, with further procurement for these works ongoing at the end of FY2023.

Despite most activities being completed by the project closure in June 2023, the rehabilitation of the Funafuti Airport runway remained incomplete due to failures in the last three tendering rounds. A new procurement round was underway, with the Tuvalu Safe and Resilient Aviation Project approved to finance these works.

Contact persons are Dung Ang Hoang at dhoang@worldbank.org and Satoshi Ogita at sogita@worldbank.org.

TUVALU Safe and Resilient Aviation Project (P180674)

The World Bank approved a USD 23 million IDA Grant for Tuvalu’s Safe and Resilient Aviation Project (TuSRAP), which became effective on 19 July 2023. The Project Development Objective is to improve the safety and resilience of Tuvalu’s aviation sector and to ensure reliable regional air connectivity. Building upon the success of TvAIP, TuSRAP comprises three primary components:

(i) Component 1: Safe and Resilient Airport Infrastructure Solutions - This component aims to upgrade the infrastructure of Funafuti International Airport, focusing on climate resilience and safety. Proposed activities include rehabilitating the runway to mitigate failure risks due to water infiltration impacted by tidal changes and sea-level rise. Additionally, it involves engaging an engineering consultancy to oversee these works and providing navigation and operational safety equipment to improve safety during adverse weather conditions.

(ii) Component 2: Strengthening the Capacity of the Aviation Sector - This aspect of the project is dedicated to enhancing the capabilities of aviation sector regulators and operators. It includes technical advisory support to the Department of Civil Aviation (DCA) on various aspects of safety, security oversight, and regulatory compliance. Additionally, it encompasses training in aviation operational safety and security, management protocols based on ICAO standards, and support for the DCA’s internship program.

(iii) Component 3: Project Implementation - This component provides technical, advisory, operational, and administrative support to the Ministry of Transport, Energy, and Tourism. It covers a range of areas including project management, environmental and social risk management, procurement, and administration.

As of 18 November 2023, the project has achieved satisfactory implementation progress. The project has demonstrated good progress in the first four months of implementation. Almost all project management unit members have been hired, and the major works contract for the runway rehabilitation, under a direct contracting arrangement, has been signed by the Implementing Agency.

Contact person is Satoshi Ogita at sogita@worldbank.org.
AFRICA
Decarbonizing Aviation Through the Scale-Up of Sustainable Aviation Fuels (P180229)

Building on the recently released World Bank flagship report titled "The Role of Sustainable Aviation Fuels in Decarbonizing Air Transport," this Advisory Services and Analytics (ASA) activity explores opportunities for WBG client countries in the sphere of air transport decarbonization.

Component 3: Bridging the Gap in Availability of Financing Sources for SAF Development - This component assesses existing funding mechanisms (such as IFIs, GEF, IPA, etc.) and explores the use of innovative financial solutions, including private sector participation, for implementing sustainable aviation fuels and other policies aimed at decarbonizing the sector. Specifically, with a focus on client countries, it addresses the following questions:

- How has SAF infrastructure spending been financed in select countries to date, and what are the present challenges in increasing levels of investment to decarbonize aviation?
- What role has climate finance played in supporting air transport sector investment, and what are the future opportunities in leveraging green finance to support the identified greener connectivity investments and policies?
- What actions need to be taken to enable the identified investments and policies to progress to implementation?

This component aims to provide a comprehensive understanding of the financial landscape for sustainable aviation fuels and to identify actionable steps to enhance investment in decarbonizing air transport.

Contact person is Megersa Abera Abate at mabate@worldbank.org.

AFRICA
Unlocking Drones for Development (P171737)

"Unlocking Drones for Development" provides technical assistance to support African countries in utilizing the lower skies for mobility and digital services with Uncrewed Aircraft Systems, commonly known as drones. Building on lessons learned from the Afri-
can Drone Forum (ADF) held in Rwanda in 2020, and other drone-related activities, the project has supported the development of several studies and provided technical assistance in areas such as ecosystem readiness, regulatory development, cost-benefit evaluation for the introduction of drones, and other aspects integral to establishing safe, effective, and scalable drone services globally.

**Unlocking the Lower Skies: The Cost and Benefits of Deploying Drones across Use Cases in East Africa**

The report explores the economic and non-monetary rationale for utilizing Uncrewed Aircraft Systems (UAS) for medical and food aid delivery, as well as for data collection in land and risk assessment mapping, agricultural services, and infrastructure inspection. It finds that drones present tremendous opportunities for strengthening the resilience of existing supply chains and accelerating digitization. However, it also highlights that cost-effectiveness, integration, and a supportive regulatory landscape are crucial enablers for the long-term success of drone operations.

**Review of UAS Regulations and Rules in African Union Member States**

The review uses a drone ecosystem development perspective to map the regulatory landscape for drones across Africa. While it should not be used or referenced as a legal review or resource, it identifies general trends and approaches to governing the use of UAS across the continent. It found a variety of regulatory approaches with limited harmonization between countries.

**Playbook for Enabling Civilian Drone Operations**

The playbook provides an end-to-end overview of activities and elements required to enable safe and sustainable drone ecosystems and high-frequency drone operations. It covers stages from initial feasibility assessment to ecosystem development, operator setup, and ultimately operations and sustainability. While it largely builds on African experiences given the focus of the project, the guidance and insights are universally applicable to help:

(i) Determine the appropriateness of drones for a given scenario,
(ii) Determine the readiness of the in-country ecosystem to support operations, and
(iii) Plan the rollout and scale-up of UAS operations

The main activities for FY2023 were focused on technical assistance around strategy and rulemaking:

(i) Participation and facilitation support for the Malawi Health Sector Drone Strategy Development Workshop as a key forum to aid the Government of Malawi in their efforts to incorporate drones in their Health Sector Strategic Plan III for 2023-2030;

(ii) Rulemaking support and review of the proposed draft Regulations for Remotely Piloted Aircraft developed by the Malawi Department of Civil Aviation that is expected to continue into FY2024 alongside knowledge exchange activities between Korea and African countries.

In response to requests for additional technical assistance on rulemaking and to identify opportunities for cross-collaboration with the World Bank, the project undertook additional activities beyond the original scope throughout FY2023, which are expected to continue into FY2024.

**The development of a Toolkit for recommendations toward creating a regulatory and oversight framework for UAS**

The toolkit draws on international rulemaking and oversight experiences and best practices to provide suggestions for developing an oversight framework for UAS. It outlines the basic premise and impetus for regulatory frameworks, offers a comprehensive overview of the rulemaking process and regulatory components, and provides associated recommendations tailored to the local context. Additionally, it highlights pertinent global trends for consideration in adoption and harmonization.

**A review of drone activities within the World Bank**

The activity aims to identify World Bank projects with drone components to uncover learning and cross-collaboration opportunities, thereby improving the effectiveness of technical assistance and capacity-building activities related to drones. The ongoing review has so far identified more than 80 projects across nearly all Global Practices, including multiple sectors such as:

- Agriculture with a focus on preparing against food insecurity and strengthening the resilience of food systems through improved monitoring systems;
- Digital development with a focus on ecosystem development and support in developing national strategies;
- Environment and natural resources with a focus on remote supervision and monitoring to improve the management and enforcement of protected areas;
- Transport with a focus on market assessments, capacity building and project progress monitoring; and
• Urban, disaster risk, resilience, and land with a combination of capacity building, implementation support for integrated planning and land tenure management, and monitoring of natural hazard vulnerability and impacts of climate change.

Figure: Drone activities within the World Bank

Contact persons are Gregor Engelmann at gengelmann@worldbank.org and Edward Charles Anderson at eanderson1@worldbank.org.

BOTSWANA
Air Botswana Privatization Viability Analysis Project (P180478)
The Air Botswana Privatization Viability Analysis is designed to evaluate the feasibility of privatizing Air Botswana, Botswana’s national carrier. It examines Air Botswana’s past performance, assesses its restructuring plan, identifies challenges, and evaluates strategic steps for a private partnership. Drawing from a recent World Bank report on airline recovery and regulatory reform opportunities in the Southern African region, it offers a detailed analysis of Air Botswana’s performance to suggest options for its future operational and ownership structure. Initiated at the request of the Ministry of Transport and Public Works (MTPW), the report aims to provide analytical support in evaluating the airline’s readiness for privatization. To fulfill this request, the Bank has mobilized funding from the Global Infrastructure Facility to assist the Government of Botswana in three key areas:

(i) Deep-dive analysis of Air Botswana and an assessment of its attractiveness for privatization;

(ii) Benchmarking analysis of Air Botswana with other state-owned airlines that have been privatized;

(iii) Roadmap for the implementation of preferred airline restructuring.

A World Bank team embarked on a mission to Gaborone, Botswana from 1 to 5 May 2023. The primary aim of this mission was to engage with key stakeholders and conduct consultations concerning the ongoing World Bank Advisory Services and Analytics on the viability of privatizing Air Botswana, supported by the Global Infrastructure Facility (GIF).

The mission commenced with in-depth discussions with the Air Botswana Board of Directors and senior management. These discussions focused on reviewing the findings and exploring potential improvement options for the airline prior to its privatization. The mission was informed about previous restructuring and reform strategies undertaken by Air Botswana, including efforts to spin off various business lines such as maintenance and repair, training centers, catering, and ground handling, in an effort to create potential profit centers. Considering these efforts and the broader market context, the mission presented a detailed assessment of Air Botswana’s current state, challenges, and opportunities. Key recommendations included establishing a clear path to privatization, treating each business line as independent profit centers, preparing and executing a professional restructuring plan, reducing operating costs, implementing adequate governance, and considering strategic partnerships with Namibia.

Subsequently, the mission engaged with officials from the Ministry of Transport and Public Works (MTPW). These discussions centered around the Government of Botswana’s (GoB) overall policy for the air transport sub-sector and the rationale behind the proposed privatization of Air Botswana. The mission presented several considerations for the GoB, including the approval of a national aviation policy with clear directions for the privatization of State-Owned Enterprises (SOEs), identifying critical infrastructure and air connectivity links to be provided under Public Service Obligation (PSO) schemes, and unbundling the Civil Aviation Authority to align with best practices. Additionally, the mission discussed the need for Air Botswana to adjust its fare structure dynamically in response to market competition, and to eliminate tariff regulation stipulations from its bylaws. The MTPW recommended that the ongoing ASA should present alternative airline reform options and strategies to support Air Botswana in increasing its value proposition by addressing systemic issues and reducing costs.

In further consultations, the mission met with representatives from the Ministry of Finance (MoF). Discussions included the overall objectives of the ASA and the MoF’s considerations for Air Botswana’s privatization and reform options. The MoF indicated that there was consideration to bring in a strategic management entity to reform the airline, pending consultation with the Cabinet of Ministers to align key political considerations. The MoF recommended exploring airline reform options,
including downsizing the network to only profitable routes, identifying essential routes to be served under PSO routes with subsidies, and considering the liquidation of the airline and the associated cost and implications.

The mission also engaged with the Acting CEO of the Public Enterprises Evaluation and Privatization Agency (PEEPA). Discussions focused on the GoB’s overall policy for the privatization of SOEs and the motivation behind the proposed privatization of Air Botswana. The Acting CEO emphasized that the Bank’s ASA could provide critical input for ongoing discussions on SOE reform options and alternative funding models to deliver essential public goods while ensuring value for money. The mission underscored the importance of having approved strategic privatization objectives and a schedule. Specific recommendations included identifying the GoB’s contribution to private sector partnerships, establishing a privatization committee to support the preparation, execution, and monitoring phases, obtaining transaction advisory support, and defining an exit strategy to avoid air service suspension. The Acting CEO also recommended including a timeline in the roadmap to ensure all stakeholders are aware of the necessary activities, their sequence, and responsible parties.

Additionally, the mission met with the Marketing Executive of the Botswana Tourism Organization (BTO) to discuss the GoB’s overall tourism strategy and the role of Air Botswana within it. The BTO presented the national tourism strategy, which focuses on high-end travelers and highlighted their dependency on long-haul markets such as the United Kingdom, Germany, the United States, and Australia. The mission noted the critical role of the national airline in tourism development, particularly in providing air connectivity to northern domestic destinations. The BTO confirmed ongoing collaboration with Air Botswana for both operations and participation in international and regional tourism fairs.

Furthermore, the mission engaged with the CEO and senior management of the Botswana Investment and Trade Centre (BITC). Discussions revolved around BITC’s role in attracting direct investment to Botswana and investors’ interest in the aviation sector. The mission learned about past interests from airlines such as Ethiopian Airlines, Turkish Airlines, and Qatar Airways. BITC recommended exploring strategies to attract strategic partners for developing the Maintenance, Repair, and Overhaul (MRO) business line and air cargo development, particularly for exporting fresh meat.

The mission concluded with a set of agreed-upon next steps with the counterparts. These included further analysis on developing joint networks between Botswana and Namibia, serviced by a pan-regional carrier built from Air Botswana’s infrastructure, finalizing the first phase report, assessing the opportunity to privatize the maintenance business line, and submitting detailed business cases for lines considered for spin-off.

Contact person are Megersa Abera Abate at mabate@worldbank.org and Mesfin Wodajo Jijo at mjijo@worldbank.org.

CENTRAL ASIA
CA Infrastructure Governance Assessment (P177090)

The Infrastructure Governance Assessments conducted in the Kyrgyz Republic, Uzbekistan, and Tajikistan aimed to improve infrastructure governance through analytical work, recommendations, and technical advice. These assessments identified key challenges, offered recommendations to enhance public investment performance, and sought to attract private sector involvement in infrastructure services. The final reports will guide reforms and technical assistance needs to enhance infrastructure governance.

Common issues across the three countries include organizational fragmentation, lack of cost/benefit analysis tools, and limited integration with national development programs. Investment decisions are often driven by available funding rather than a systematic assessment of development needs, with little consideration for long-term asset maintenance costs. Line ministries propose investments that are superficially vetted, and finance ministries make final decisions based on budget constraints. Private sector investment is hindered by heavy government regulation and the dominance of state-owned enterprises in key infrastructure sectors.

A collaborative approach with the governments was established, involving a consultative process to identify and address challenges. The assessments required cooperation within the World Bank to align with regional priorities and leverage sector-specific knowledge. Due to budget constraints, additional funds were sought from the QII trust fund.

Key outcomes from the reports include

(i) Uzbekistan: The report generated interest, especially from the Strategic Reforms Agency, for guidance on digital transformation in strategic planning and coordination. The Ministry of Economy and Finance is exploring ways to streamline investment program formation and monitoring, especially following the integration of the PPP Unit. The Water SOE O’zsuva’taminot, undergoing water infrastructure governance reforms, is seeking support. Future work will be coordinated with relevant sectors and upcoming InfraSAP and DPO initiatives.

(ii) Tajikistan: The Civil Aviation Authority is interested in enhancing aviation infrastructure to support the open skies initiative. The Ministry of Economic Development and Trade aims to transform the public investment program into a strategic planning document with approved funding, focusing on climate-resilient infrastructure. A Programmatic DPO is expected, offering further engagement opportunities.
(iii) Kyrgyz Republic: The Ministry of Finance intends to harmonize procedures for donor-funded and state budget projects, with the National Investment Authority focusing on private investment mobilization. Digital transformation has gained more interest than energy-related aspects, with limited immediate follow-up initiatives except for private investment mobilization support.

Overall, these assessments have laid the groundwork for policy dialogue and future World Bank support in improving infrastructure governance in Central Asia.

Contact persons are Daniel Veronica Felcman at dfelcman@worldbank.org and Robert O. Panzardi at rpanzardi@worldbank.org.

JORDAN
Alignment of Policy with Updated National Transport Strategy and Road Safety Assessment (P179050)

The World Bank approved this initiative on 31 May 2022, with the Development Objective of aiding the Government of Jordan (GoJ) in conducting a comprehensive road safety assessment and developing a strategic roadmap for the sustainable advancement of the transport sector across short-term, medium-term, and long-term horizons.

This ASA endeavor is designed to support the Ministry of Transport by conducting a thorough review of the existing Transport Policy and Institutional Framework (2017), emphasizing green, climate-resilient, and gender-inclusive transport initiatives. Additionally, it aims to prepare a detailed road safety assessment and roadmap to guide the transport sector’s sustainable development through various timeframes. The ASA encompasses several key tasks:

(i) Task 1 involves a critical examination of the transport policy, aligning it with the national strategy’s updates and identifying any remaining gaps. This task prioritizes enhancing multi-modal transport systems, promoting decarbonization within the transport sector, encouraging private sector engagement, and strengthening regional connectivity to establish Jordan as a pivotal regional hub for transit and trade.

(ii) Task 2 entails assisting the Ministry of Transport in organizing stakeholder workshops to review the Transport Policy and Institutional Framework (2017), leading to actionable recommendations for augmenting the sector’s regulatory and legislative framework.

Task 3 focuses on supporting the Ministry of Transport in executing a road safety assessment, featuring stakeholder consultations to formulate strategic recommendations and a future roadmap. This includes evaluating Jordan’s existing road safety legislation against international best practices and assessing enforcement effectiveness.

Task 4 supports the GoJ in crafting a framework for toll roads to enhance infrastructure financing mechanisms. Following a request from the GoJ dated 2 October 2022, for assistance in developing a National Air Transport Policy, the World Bank assembled a mission team that embarked on a fact-finding mission from 6 to 10 November 2022. This mission sought to gauge the civil aviation sector’s status in Jordan, exploring avenues to foster policy dialogue in the air transport domain. Discussions with GoJ representatives and aviation officials revolved around the sector’s landscape, operators, infrastructure, development strategy, and pertinent institutional and legal concerns.

Building on the mission’s preliminary findings, the WB team recommends a structured, three-phase approach to crafting a National Air Transport Policy:

(i) Phase 1: Diagnostics - Conducting a deep dive into structural issues related to pricing, subsidies, competition, and the institutional framework, laying the analytical groundwork for policy development.

(ii) Phase 2: Policy Formulation - Leveraging insights from the diagnostic phase to formulate a comprehensive National Air Transport Policy, which is a Recipient executed component.

(iii) Phase 3: Institutional Reforms - Offering specialized technical assistance to review and potentially restructure existing aviation institutions, and to conceptualize a Civil Aviation Board (CAB) for Jordan. This phase will identify key stakeholders, outline institutional arrangements, and establish decision-making mechanisms for the CAB.

This approach aims to facilitate a robust, sustainable development trajectory for Jordan’s aviation sector, aligning with broader economic and environmental goals.

Contact persons are Muneeza Mehmoood Alam at mal-am5@worldbank.org and Hakim A. A. Al-Aghbari at aalaghbari@worldbank.org.
LATIN AMERICA
Support for Remotely Piloted Aircrafts (Drones) Projects and Operations in Haiti, Guatemala, and Brazil (P176634)

The Global Infrastructure Facility, in partnership with the World Bank, is supporting a pioneering project led by PricewaterhouseCoopers (PwC) to explore the applications of Remotely Piloted Aircrafts (RPAs) in Latin America and the Caribbean. This project, focusing primarily on Haiti, Guatemala, and Brazil, is driven by the keen interest of these nations in integrating innovative drone technologies into their infrastructure.

The initiative involves a comprehensive analysis of existing drone applications, drawing insights from successful projects like the African Drone Forum and the Zipline project in Rwanda and Ghana. The aim is to gather detailed knowledge about the commercial viability of drone operations in the Latin American context, focusing on understanding market dynamics, regulatory environments, potential challenges, and key players in the sector.

PwC’s involvement in this project spans three distinct phases. The first phase involved an in-depth analysis of the drone ecosystem in Latin America and the Caribbean, benchmarking against international best practices. The second phase is dedicated to evaluating business models and the potential market value for drone operations in the region. The final phase focuses on developing pilot project proposals and strategic recommendations tailored to the specific needs and regulatory landscapes of the target countries.

The project also envisions the development of pilot drone initiatives in Guatemala, Tocantins in Brazil, and Haiti, with a focus on regulatory development, innovative procurement methods, and the integration of emerging technologies.

As of the last update, PwC has completed the first two phases of the project, with the third phase actively in progress. This includes extensive collaboration with the governments of Guatemala and Haiti to address specific challenges and opportunities in each country. In Guatemala, the Ministry of Health has shown particular interest in utilizing drones for the efficient delivery of medical supplies.

In the state of Tocantins, Brazil, the pilot project is part of a broader initiative, the Tocantins Integrated Sustainable Regional Development Project. This pilot focuses on environmental protection, deforestation monitoring, and wildfire prevention, with PwC providing essential support in planning and selecting appropriate technological solutions.

The project underscores the potential of drones in addressing climate-specific goals, particularly in Haiti, where efforts are focused on resilience and disaster risk management. PwC’s work until June 2023 has been critical in advancing these goals and demonstrating the scalable potential of drone technology in diverse scenarios.

As a continuation of this activity, two “spin-offs” have started to mainstream the use of drones in operations:

- Haiti: The World Bank obtained funding in FY2023 (PPIAF) to continue technical assistance for the preparation of regulations and a toolkit for the use of UAVs in disaster risk management.
- El Salvador: The World Bank began technical assistance in FY2024 as part of a new operation (ESTRIP P178720) for the use of UAVs to monitor road infrastructure. A proof of concept will be carried out next March/April, helping to define the outlines of a future pilot project in this field.

For both initiatives, PwC is providing support.

Contact person is Carlos Lama at cbel-las@worldbank.org, Carlos Maties at cmurguimat-ies@worldbank.org, and Fabian Hinojosa at fhino-josa@worldbank.org.

NEPAL
Trade and Transport Facilitation Program in Eastern South Asia (P171169)

The World Bank embarked on a mission to Kathmandu, Nepal. The primary objective was to conduct a comprehensive safety review of the major airlines and helicopter operators within the country. This mission was crucial for advising the Country Management Unit (CMU) on staff air travel safety and completing the ongoing advisory services concerning Nepal’s air transport sector.

The mission undertook an extensive Advanced Operator Assessment. This process involved using a standardized checklist to interview management and staff, visiting corporate headquarters, operations centers, maintenance facilities, and inspecting available aircraft. The CMU selected six operators for this review: Buddha Air, Yeti Airlines, Tara Air, Heli Everest, Altitude Air, and Simrik Air. The findings and assessments from these reviews were compiled into the Advanced Operator Assessment report. This report is intended to guide staff and management on safety considerations for traveling with these carriers and to update the World Bank Airline Advisory System. Additionally, the mission team briefed the staff at the Nepal country office, presenting initial impressions of the inspected operators and discussing air travel safety concerns in Nepal.

The Advanced Operator Assessment yielded the following classifications and findings for the reviewed operators:

(i) Buddha Air was reclassified as a category 3a carrier, meaning it is a “no objection” airline for both scheduled and charter flights for a period of two
(ii) Yeti Airlines maintained its category 1 classification until October 22, 2023, contingent upon the renewal of its IATA ISSA certification within three months.

(iii) Tara Air remains a category 3c operator, signifying significant risk and is recommended only for essential missions.

(iv) Heli Everest is deemed one of the preferred on-demand operators for helicopter transport, yet due to a recent accident, it remains classified as a moderate risk operator (3b), necessitating a safety assessment for each charter.

(v) Altitude Air is also considered a preferred on-demand operator but retains a moderate risk classification (3b) due to a 2018 accident, requiring a safety assessment for each charter.

(vi) Simrik Air is favored for high altitude destinations (up to 18,000 ft/5,500 meters) but, like the others, remains classified as moderate risk (3b) following a 2018 accident, with each charter requiring a safety assessment.

Beyond the operator assessments, the mission engaged in technical discussions with development partners regarding the Hydromet Master Plan Development. A significant point of concern was that weather radars, financed by donors, were not providing real-time input to air traffic controllers or operations centers. Furthermore, one radar had been non-operational since 2018 due to lightning damage. The mission team also met with the Deputy Director General of the Department of Hydrology and Meteorology to explore potential financing options for aviation safety enhancements with the remaining funds from the Australian Trust Fund, set to expire at the end of FY2023. However, given the limited timeframe and the more pressing need for hardware investments, it was concluded that these needs might be addressed at a later stage or by another donor.

In discussions with the Secretary of the Ministry of Culture, Tourism, and Civil Aviation, the mission explored how the World Bank could support the improvement of aviation safety in the short term. It was agreed that the best use of the remaining funds would be to establish an Accident Investigation Unit in compliance with ICAO Annex 13, which pertains to aircraft accident and incident investigation. This unit would be established as an independent entity directly under the head of the Ministry of Culture, Tourism, and Civil Aviation.

The proposed outputs for the Accident Investigation Unit include the preparation of an aircraft accident and incident investigation procedures manual, a training needs assessment, the training of accident investigators, the preparation of a list of minimum necessary equipment for conducting investigations, the development of a mechanism for the collection and analysis of safety data, and the establishment of an Accident/Incident Data Report (ADREP) System.

The next steps outlined include the completion of an aviation safety report as an output of the Australian Trust Fund-funded work, which will encompass findings on the Civil Aviation Authority of Nepal (CAAN) and the safety review of selected air operators. Additionally, a consultancy will be mandated to establish the Accident Investigation Unit in Nepal.

In conclusion, this mission has provided a comprehensive overview of the current state of air transport safety in Nepal, offering critical insights and recommendations to enhance safety measures and ensure the well-being of air travelers in the region.

Contact persons are Shruti Vijayakumar svijayakumar@worldbank.org and Charles E. Schlumberger cschlumberger@worldbank.org.

TAJIKISTAN
Support to Tajikistan Aviation Sector Modernization (P179839)

The Support to Tajikistan Aviation Sector Modernization project aims to facilitate the modernization of Tajikistan’s aviation policy. Building on a preceding study, this second phase focuses on liberalizing the aviation sector, with the goal of transitioning to Open Skies by 2026.

Key focus areas of the project include market and traffic development, legal and regulatory reforms, institutional restructuring, and systems modernization. These efforts aim to enhance the performance of Tajikistan’s aviation sector, ensure compliance with ICAO Standards, foster competition in airline ground services at Tajik airports, and develop the domestic aviation network.
The project involves creating a strategic roadmap to implement previously identified policy reforms. This includes evaluating compliance with ICAO Standards, identifying necessary reforms, and planning their execution. Additionally, it entails assessing existing infrastructure capabilities to modernize in accordance with technological advancements in aeronautical telecommunication services.

Furthermore, the project examines the feasibility of commercial contracts and public-private partnerships in the aviation sector. It assesses the attractiveness of assets to private investors by considering traffic growth projections, investment requirements, and legal considerations.

Contact person is Daniel Saslavsky at dsaslavsky@worldbank.org.

**UZBEKISTAN**

**Support to Aviation Sector Reforms Phase 2 (P171028)**

The World Bank has been actively involved in aviation sector reform in Uzbekistan, marked by the second phase of the Reimbursable Advisory Service (RAS) agreement signed on 17 January 2020. This phase focuses on developing aviation sector policies, enhancing the competitiveness of national airlines, ensuring the sustainability of air transport service providers, and strengthening institutional governance capacities. The objective of these reforms is to align the aviation sector with the increasing demand for tourism and foster competitive dynamics in the market.

This phase follows the successful completion of the first RAS (RAS Phase 1) in 2019, during which the World Bank Group (WBG) advised the Government of Uzbekistan on modernizing the aviation sector’s organizational structure, evaluating the business aspects of the national airline, and exploring airport Public-Private Partnership (PPP) models. The outcomes of this phase led to significant reforms initiated by Presidential Decree 5584 on 27 November 2018. These reforms included the unbundling of the National Air Company “Uzbekistan Airways,” the creation of the Ministry of Transport, and the separation of airline operations from airport management and regulatory functions. The reform also opened opportunities for private sector engagement in airport PPPs.

The ongoing support in RAS Phase 2 includes strengthening policymaking and regulatory oversight, developing a National Aviation Policy, improving the performance of state-owned enterprises (SOEs) amid the unbundling efforts, and encouraging private investment. The support is organized into two parts:

(i) Institutional and regulatory reform, encompassing the establishment of policy-making functions in the Ministry of Transport and enhancing the Civil Aviation Agency’s regulatory oversight capacity.

(ii) Implementation of unbundling activities and restructuring of SOEs, including establishing operations for “Uzbekistan Airport” Joint-Stock Company and its subsidiaries, restructuring “Uzbekistan Airways” Joint-Stock Company along with a detailed Business Plan, and restructuring “Uzbekistan Airways Technics LLC”.

In September 2022, a World Bank mission reviewed these activities, discussing the progress and final results with various ministries and entities. Key discussions included strengthening the Civil Aviation Agency’s capacities, the restructuring and modernization of Uzbekistan Airways, and the need to reinforce the institutional framework for effective aviation reforms. Issues regarding the financial impact of new airport developments and the establishment of an airline subsidiary by Uzbekistan Airports JSC were also addressed. The mission concluded by identifying potential areas for further support, such as developing a Domestic Air Connectivity Program, supporting the restructuring and privatization of Uzbekistan Airways, strategizing airport network rationalization, and developing economic regulation for airport and air navigation charges.

Contact persons are Sevara Melibaeva at smelibaeva@worldbank.org and Daniel Saslavsky at dsaslavsky@worldbank.org.
The Transport Support to ZIMREF Capital Budget TA aimed to enhance the development of the transport sector in Zimbabwe by increasing the efficiency and effectiveness of public investments. Key collaborating institutions included the Ministry of Transport and Infrastructure Development (MoTID), National Railways of Zimbabwe (NRZ), Civil Aviation Authority of Zimbabwe (CAAZ), and Zimbabwe National Road Administration (ZINARA).

The project's scope included delivering policy papers and studies on various aspects such as aviation reforms, road sector institutional reforms, rail market studies, and evaluations of road tolling policies and user charges. Additionally, it supported the advancement of modern systems for public investment planning and management, as well as resource mobilization. This aimed to improve governance in state enterprises and aid the development of viable transport and energy projects.

The project facilitated stakeholder collaboration to identify priority intervention areas, enhance operational efficiency, and prepare investments in the transport sector. It also provided technical assistance for public investment management by developing guidelines, manuals, and training programs.

Despite minor efficiency issues and adjustments, particularly in the spatial analysis component, and delays due to the COVID-19 pandemic, the project achieved its development objective with high relevance. The urban transport report was completed, although it has not yet been endorsed by the Government. The outputs, including key documents and activities, are poised to serve as foundational references for future advancements in Zimbabwe’s transport sector. The project concluded in FY2023.

Contact person are Aymen Ahmed Osman Ali at aali15@worldbank.org and Leslie Nii Odartey Mills at lmills12@worldbank.org.

Tourism, which has been volatile since 2001, could play an important role in the development of the international segment. Today, it is highly concentrated in Harare and Victoria Falls.

Only 14% of tourist arrived by air in Zimbabwe compared to Africa’s average of 50%
**IFC AIR TRANSPORT PROJECTS:** The IFC provides financing to private sector companies and has traditionally financed air carriers and airport infrastructure projects.

**IFC ACTIVE AVIATION PORTFOLIO:** Major active projects financed by the International Finance Corporation (IFC) include Antalya Airport in Turkey, Almaty Airport in Kazakhstan, Sofia Airport in Bulgaria, Belgrade Airport in Serbia, Zagreb Airport in Croatia, Airports in Nosy Be and Antananarivo in Madagascar, Lima Airport in Peru, Enfidha Airport in Tunisia, and the Agila-Pacific project in the Philippines.

In addition, IFC is active through the provision of PPP Transaction Advisory services to government clients.
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PROJECT CODE</th>
<th>DESCRIPTION</th>
<th>AMOUNT (USD)</th>
<th>IFC’S EXPOSURE (as of end of FY2022) USD*</th>
<th>TYPE</th>
</tr>
</thead>
</table>
| Jordan  | 26182, 34536, 26864, 26685 | Queen Alia International Airport: Rehabilitation of both airport and landside facilities | $295 million; $148.4 million for IFC’s own account | $75.1 million in loans, and $5.8 million in swaps | IFC A Loan $141.2 million; $160 million B Loan (26182) and (34536)  
IFC Client Risk Management - 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 | $19.4 million | Equity |
| Peru    | 24489, 46191 | Lima Airports Partnership: Financial restructuring and assistance in conjunction with Fraport; Lima Airport RI was recently committed to support the expansion (equity) | $20 million and $101 million (new project) | $13.4 million and $16.9 million (new project) | Equity |
| Tunisia | 26913        | TAV Tunis Equity: 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 | $27.9 million in loans | IFC A Loan, Subordinated Loan, Syndicated B Loan, Equity |
## IFC PROJECTS

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PROJECT CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>31969</td>
<td>Zagreb Airport: Construction and operation of a new passenger terminal and related infrastructure at Zagreb Airport and the existing facilities.</td>
</tr>
<tr>
<td>Madagascar</td>
<td>36882</td>
<td>FCS RE-Ravinala: Upgrade and expansion of the two international airports of the country, with the help of the Emerging Africa Infrastructure Fund.</td>
</tr>
<tr>
<td>Serbia</td>
<td>41123</td>
<td>Belgrade Airport: Capacity increase and upfront concession fee for the airports authority</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>43007</td>
<td>Almaty Airport: The financing will cover the construction of a new international terminal at the Almaty airport, busiest airport in Central Asia. IFC is also helping the airport become EDGE certified, which is an IFC certification for green buildings that reduce resource use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PROJECT CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>31969</td>
<td>Zagreb Airport: Construction and operation of a new passenger terminal and related infrastructure at Zagreb Airport and the existing facilities.</td>
</tr>
<tr>
<td>Madagascar</td>
<td>36882</td>
<td>FCS RE-Ravinala: Upgrade and expansion of the two international airports of the country, with the help of the Emerging Africa Infrastructure Fund.</td>
</tr>
<tr>
<td>Serbia</td>
<td>41123</td>
<td>Belgrade Airport: Capacity increase and upfront concession fee for the airports authority</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>43007</td>
<td>Almaty Airport: The financing will cover the construction of a new international terminal at the Almaty airport, busiest airport in Central Asia. IFC is also helping the airport become EDGE certified, which is an IFC certification for green buildings that reduce resource use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount (USD)</th>
<th>IFC'S EXPOSURE (as of end of FY2022) USD*</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>$72.65 million for IFC's own account</td>
<td>$3.4 million in loans and $14.4 million in equity</td>
<td>A Loan, Equity, and C Loan (31969)</td>
</tr>
<tr>
<td>$43.5 million A Loan, $109.4 million Parallel Loan and $71.3 million MIGA Guarantee</td>
<td>$25.3 million in loans and $1.8 million in risk management products</td>
<td>A Loan, Parallel Loan and MIGA Guarantee</td>
</tr>
<tr>
<td>EUR 72 million A Loan for IFC's own account plus EUR 110 million B Loan</td>
<td>$78.1 million in loans</td>
<td>A Loan and B Loan</td>
</tr>
<tr>
<td>$150 million for IFC own account, $72.2 million from IFC's Managed Co-Lending Portfolio Program. This $222.2 million portion is IFC's OA + mobilization. Additional financiers include $150 million EBRD, and $77.8 million other parallel loans</td>
<td>$138.1 million in loan and $9.9 million in risk management products</td>
<td>Loan + mobi</td>
</tr>
</tbody>
</table>
# IFC Projects

<table>
<thead>
<tr>
<th>Country</th>
<th>Project Code</th>
<th>Description</th>
<th>Amount (USD)</th>
<th>IFC’s Exposure (as of end of FY2022) USD*</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>46443</td>
<td>Agila (Cebu Pacific): The financing will provide Cebu Pacific with a longer liquidity runway to help the company withstand the effects of the COVID-19 pandemic until economic activity and travel demand recover</td>
<td>$125 million for IFC and IFC AMC Emerging Asia Fund, Indigo Partners for $125 million, for a $250 million total convertible bond</td>
<td>$62.5 million in quasi-loan</td>
<td>Quasi-loan (convertible bond) + mobi</td>
</tr>
<tr>
<td>Turkiye</td>
<td>44179</td>
<td>Antalya (TAV-Fraport): IFC is providing a €150 million loan to Fraport TAV, which manages and operates the airport terminals, to help fund the upfront lease payment and capital expenditure program for the airport.</td>
<td>€150 million loan to Fraport TAV, as part of a €1.9 billion package, alongside the European Bank for Reconstruction and Development, the Asian Infrastructure Investment Bank, and 13 commercial banks.</td>
<td>$110.7 million in loans</td>
<td>Loan + mobi</td>
</tr>
<tr>
<td>Cape Verde</td>
<td>43450</td>
<td>CV Airports (Vinci-Aeroportos de Portugal): The Project entails financing the refurbishment, maintenance and operation of Cabo Verde’s airport network (4 international and 3 domestic hubs) across seven islands. The concessionaires are Vinci Airports SAS, in consortium with ANA – Aeroportos de Portugal (together, the Sponsors).</td>
<td>$32.9 million loan (IFC’s OA) + risk management of $6.0</td>
<td>$0.00</td>
<td>Loan + risk management</td>
</tr>
</tbody>
</table>

*Exposure is defined as outstanding balance as of 30 June 2023*
IFC: PROJECT HIGHLIGHTS

Türkiye
Antalya
Project (46443)

In F2023, IFC provided a EURO 150 million loan to Fraport TAV, which manages and operates Antalya airport terminals, as part of EURO 1.9 billion financing package, alongside the European Bank for Reconstruction and Development, the Asian Infrastructure Investment Bank, and 13 commercial banks. This will help fund the upfront lease payment and capital expenditure program for the airport and support the sector’s development. Improving connectivity and further integrating Türkiye into the global tourism market is critical as the country recovers from the COVID-19 crisis.

IFC is supporting an upgrade of Antalya Airport to enhance Türkiye’s competitiveness as a global tourism destination while helping to manage the project’s carbon footprint in line with the Paris Agreement and will also be supporting Fraport TAV in reducing the expansion’s carbon footprint by utilizing renewable energy generated on-site and constructing energy-efficient terminals. The new expanded terminal buildings are expected to achieve energy savings of at least 24 percent, qualifying them for a Leadership in Energy and Environmental Design Gold certification. IFC’s first airport financing in the country will help improve transport connectivity and provide a crucial source of funding at a time of increased economic uncertainty.

Kazakhstan
Airport Almaty
Project (43007)

In FY2022, IFC led a USD 450 million financing package for the Almaty airport’s owners, a consortium led by Türkiye’s TAV Airports. The funding will support the construction of a new international terminal at the airport, the busiest air transportation hub in Central Asia. The project is expected to bolster Kazakhstan’s links to the world and, in doing so, create thousands of jobs across the Kazakh economy. It will also set a new standard for environmentally friendly airport construction in Kazakhstan. The project represents the largest private investment in an airport in Central Asia.

IFC is providing a financing package to Almaty International Airport that totals USD 222.2 million and comprises a USD 150 million loan from IFC’s own account and USD 72.2 million from IFC’s Managed Co-Lending Portfolio Program. The European Bank
for Reconstruction and Development (EBRD) is also providing a USD 150 million loan. As well, IFC and EBRD jointly mobilized parallel loans by DEG, the German development finance institution, and the Eurasian Development Bank (EDB) valued at a total of USD 77.8 million.

Almaty International Airport served 6.4 million passengers and carried more than 69,000 tons of cargo in 2019, making it the region’s busiest airport. Despite that, Kazakhstan’s air traffic volumes and connectivity lag similar-sized economies, and its airports have had only limited renovations over the years. The financing will support significant upgrades by TAV Airports, a long-term IFC client, and the construction of a new international terminal. That is expected to help strengthen Kazakhstan’s connectivity and economic competitiveness, positioning the country for a stronger post-COVID recovery.

The airport will also be the first in Central Asia certified under IFC’s Excellence in Design for Greater Efficiencies (EDGE) program, which recognizes environmentally friendly buildings. IFC expected the upgraded airport will be more energy efficient, produce less waste, and emit fewer greenhouse gases once upgraded and expanded.

Philippines
Agila-Cebu Pacific Project (44179)

A leading player in the Philippine aviation industry for 25 years, Cebu Pacific is the largest airline in the country, providing low-cost air transport services within Philippines, as well as to the rest of Asia and the Middle East. In FY2021, the IFC Emerging Asia Fund, a private equity fund managed by the IFC AMC, an Indigo Partners, a private equity firm focused on air transport investments, invested USD 250 million in Cebu Pacific in the form of convertible bonds. Affordable air travel is essential to continued growth in the Philippines, an archipelago nation of over 7,000 islands, that is deeply dependent on tourism (~12.7% of GDP in 2019). Closed in early 2021, the investment will provide Cebu Pacific with a longer liquidity runway to help the company withstand the effects of the COVID-19 pandemic until economic activity and travel demand recover. IFC played a key role in mobilizing Indigo, a globally experienced 3rd party investor and strategic partner.

Bulgaria
Sofia Airport Project (25713)

In 2020, SOF Connect signed a 35-year concession with Bulgaria’s Ministry of Transport, Infrastructure Information Technology and Comms to expand, operate and maintain the Sofia Airport. The project company is owned by Meridiam and Strabag and supported by Munich Airport as a third-party operator. In FY2021, IFC committed a EURO 30 million loan to modernize and upgrade the airport’s infrastructure, including refurbishing and optimizing terminal facilities, as part of a total EURO 480 million project cost. As the lead advisor, IFC’s CTA department helped the government design a competitive, transparent tender for this Public-Private Partnership (PPP) - the first major PPP in Bulgaria in a decade. IFC’s funding will go towards the upfront concession fee, refurbishment and optimization of the existing terminal facilities and aircraft gates to boost efficiency and provide quality passenger services and commercial offerings, among others. Closed in early 2021, this project was one of the first major airport sector transactions to close in the region since the onset of COVID-19.

Serbia
Belgrade Airport Project (41123)

In 2018, Vinci Airports won a 25-year concession for the upgrade, expansion, operation and maintenance of Belgrade’s Nikola Tesla Airport. In FY2019, IFC committed a EURO 182 million financing package for the airport’s development, including a EURO 72 million senior loan for its own account and EURO 110 million in mobilized funds from six commercial banks.
as part of a total EURO 420 million project cost. Well-managed airports are economic engines that connect people and goods to spur regional growth. As Serbia’s main hub, the Belgrade Airport received a 5.6 million passengers in 2018 and is set to nearly triple its capacity by the end of the concession. The airport’s upgrades and operation are expected to generate ~ 41,000 indirect jobs, enhance regional economic integration and unlock the country’s tourism potential. The concessionaire transferred EURO 501 million upfront concession fee to the government and will invest EURO 400 million to upgrade the airport. The fiscal benefit of the upfront fee would be equivalent to 1.4% of Serbia’s annual GDP in 2017. This is Serbia’s first infrastructure PPP and the transaction has the potential for a strong demonstration effect in the region.

**Croatia**
**Zagreb Airport Project (31969)**

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 USD 72.65 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 is 65,000 square meters and has welcomed 5 million travelers per year since it opened in March 2017, compared to its previous capacity of 2 million. An average of 400 new jobs were 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.

**Madagascar**
**Airports in Nosy Be and Antananarivo Project (36882)**

In FY2017, IFC approved the project for airports in Madagascar. The project consists in a 28-year Design, Build, Finance, Operate and Transfer (“DBFO”) concession to rehabilitate, upgrade, expand, operate and maintain the two largest airports in Madagascar: Ivato Airport, serving the capital city Antananarivo, and Fascone Airport, located on the island of Nosy Be, the country’s busiest tourist destination. The concession was awarded through an international competitive tender to Ravinala Airports. The Project Company’s shares will be owned by four reputable
investors, three of whom are existing IFC clients. It represented an opportunity for IFC to invest in one of the poorest countries in the world. The investment aimed to expand the airports’ capacity while they remained operational.

**Peru**

**Lima Airport Project (24489)**

In FY2007, IFC approved the Lima Airport equity investment. It was for a 19.99% stake for USD 20 million. At the time IFC considered the investment, Lima Airport Partners S.L.R. (LAP) had a 30-year concession to operate the Jorge Chavez International Airport in Lima, Peru. Concession term can be extended to 40 years at LAP’s option and to 60 years by mutual agreement between LAP and the government of Peru. JCIA is the only commercial airport serving Lima and is Peru’s primary international airport, operating on a 24-hour schedule. It was, and remains, the principal hub for domestic routes in Peru. IFC’s investment intended to support the private operation of an international airport hub in one of Latin America’s best performing economies and enabled the transfer of control from a shareholder (Singapore Airport/Bechtel) to a strategic investor and airport operator (Fraport AG), committed to the airport’s expansion and increased efficiency.

Fraport AG Frankfurt Airport Services Worldwide (“Fraport”) Airport in Germany, the seventh largest airport in the world and second largest airport in Europe. Fraport’s management was meant to add airport operation and management know-how and result in an upgrading of skills of the local workforce. MIGA also provided Fraport with a guarantee for USD 11.5 million, to cover its USD 12.8 million counter guarantee for a performance bond posted for the privatization of Lima’s airport.

**Tunisia**

**Enfidha Airport Construction Project (26913)**

In FY2018, IFC arranged a full financing package of EURO 135 million from IFC’s own account and a EURO 255 million syndicated loan, underwritten by ABN, Société Générale, and Standard Bank. This was for a new airport at Enfidha, in central Tunisia, which would have an initial capacity of 7 million passengers per year. This was also to rehabilitate the existing airport at Monastir and operate both under a 40-year concession. The airports were set to serve major tourism areas around the towns of Monastir, Sousse and Hammamet on the Mediterranean Coast. This was the first PPP in the air transport sector in Tunisia and more broadly, in North Africa.

Contact persons for all IFC Investment projects is Maria Lopez Conde at mlopezconde@ifc.org.
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 interests, 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 commercial airports are managed or owned by private sector entities. However, as passengers carried by air transport neared 4.1 billion in 2017 and more than one-third in value of all merchandise and goods 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 meeting 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.): The state retains ownership of the 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 a first-phase BOT followed by a public offering can maximize benefits.

In certain cases, a blend of a first-phase BOT followed by a 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 30 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-cost base (staff and fleet) that is difficult for a new owner to manage. In addition, fuel costs are beyond management’s control. During the period of higher oil prices in 2011-2014, they accounted for as much as 30 percent of the cost base (up from 15-20 percent in 2009), and have since dropped with declining oil prices (variations according to individual airline hedging strategies).
- 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.

Contact person for all IFC Advisory Services is Alexandre Leigh at aleigh@ifc.org.
**SELECTED IFC ADVISORY MANDATES IN AIR-**

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>COUNTRY</th>
<th>YEAR</th>
<th>MANDATE/RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan Airports</td>
<td>Pakistan</td>
<td>2023-ongoing</td>
<td>Due Diligence / Project Structuring - ongoing</td>
</tr>
<tr>
<td>Baghdad Airport</td>
<td>Iraq</td>
<td>2023-ongoing</td>
<td>Due Diligence / Project Structuring - ongoing</td>
</tr>
<tr>
<td>Dili Airport</td>
<td>Timor-Leste</td>
<td>2022-ongoing</td>
<td>Due Diligence / Project Structuring - ongoing</td>
</tr>
<tr>
<td>Indonesian Airports</td>
<td>Indonesia</td>
<td>2021-ongoing</td>
<td>Due Diligence - ongoing</td>
</tr>
<tr>
<td>Manas Airport</td>
<td>Kyrgyzstan</td>
<td>2021-ongoing</td>
<td>Due Diligence / Project Structuring - ongoing</td>
</tr>
<tr>
<td>Iraqi Airports</td>
<td>Iraq</td>
<td>2019-21</td>
<td>Market assessment – Sector masterplan</td>
</tr>
<tr>
<td>Madinah Airport II</td>
<td>Saudi Arabia</td>
<td>2021-2022</td>
<td>Restructuring / Refinancing</td>
</tr>
<tr>
<td>Grantley Adams Airport</td>
<td>Barbados</td>
<td>2019-2022</td>
<td>Due Diligence / Project Structuring / RFQ</td>
</tr>
<tr>
<td>Montenegro Airports</td>
<td>Montenegro</td>
<td>2018-2020</td>
<td>Due Diligence / Project Structuring / RFQ</td>
</tr>
<tr>
<td>Beirut Airport</td>
<td>Lebanon</td>
<td>2018-2020</td>
<td>Due Diligence / Project Structuring</td>
</tr>
<tr>
<td>Sofia Airport</td>
<td>Bulgaria</td>
<td>2017-2020</td>
<td>Awarded to Munich Airport</td>
</tr>
<tr>
<td>Nepal Airports</td>
<td>Nepal</td>
<td>2016-2019</td>
<td>Strategic Assessment Completed</td>
</tr>
<tr>
<td>Clark Airport</td>
<td>Philippines</td>
<td>2018</td>
<td>Awarded to Changi led consortium</td>
</tr>
<tr>
<td>Norman Manley Airport</td>
<td>Jamaica</td>
<td>2018</td>
<td>Awarded to GAP led consortium</td>
</tr>
<tr>
<td>Samoa Airline JV</td>
<td>Samoa</td>
<td>2017</td>
<td>JV Options Analysis</td>
</tr>
<tr>
<td>Jacksons Airport</td>
<td>Papua New Guinea</td>
<td>2017</td>
<td>Strategic Options Analysis</td>
</tr>
<tr>
<td>Jeddah Airport</td>
<td>Saudi Arabia</td>
<td>2016</td>
<td>Due Diligence / Project Structuring / Tender process</td>
</tr>
<tr>
<td>Taif Airport</td>
<td>Saudi Arabia</td>
<td>2016</td>
<td>Due Diligence / Project Structuring</td>
</tr>
<tr>
<td>Saint Lucia Airport</td>
<td>Saint Lucia</td>
<td>2016</td>
<td>Due Diligence / Project Structuring</td>
</tr>
<tr>
<td>Croatia Airlines</td>
<td>Croatia</td>
<td>2015</td>
<td>Strategic Partnership analysis</td>
</tr>
<tr>
<td>PROJECT NAME</td>
<td>COUNTRY</td>
<td>YEAR</td>
<td>MANDATE/RESULT</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Brazilian Airports</td>
<td>Brazil</td>
<td>2014</td>
<td>Galeao and Confins Airports successfully awarded to Changi and Zurich Airport led consortiums respectively</td>
</tr>
<tr>
<td>Dili Airport</td>
<td>East Timor</td>
<td>2014</td>
<td>Feasibility Study Completed</td>
</tr>
<tr>
<td>Madinah Airport</td>
<td>Saudi Arabia</td>
<td>2012</td>
<td>Successfully awarded to TAV, Saudi Oger, Al Rajhi consortium</td>
</tr>
<tr>
<td>Male Airport</td>
<td>Maldives</td>
<td>2010</td>
<td>Successfully awarded to MAHB —GMR</td>
</tr>
<tr>
<td>Queen Alia Airport</td>
<td>Jordan</td>
<td>2007</td>
<td>Successfully awarded to Aéroports de Paris, ADIC, J&amp;P, Noor consortium</td>
</tr>
<tr>
<td>Hajj Terminal</td>
<td>Saudi Arabia</td>
<td>2007</td>
<td>Successfully awarded to Saudi Bin Laden Group, Aéroports de Paris consortium</td>
</tr>
<tr>
<td>Abuja Airport</td>
<td>Nigeria</td>
<td>2006</td>
<td>Successfully awarded to Abuja Gate-way consortium (Airport Authority and equity partners)</td>
</tr>
<tr>
<td>Air Jamaica</td>
<td>Jamaica</td>
<td>2009</td>
<td>Awarded to Caribbean Airlines</td>
</tr>
<tr>
<td>Drukair</td>
<td>Bhutan</td>
<td>2008</td>
<td>Strategic analysis</td>
</tr>
<tr>
<td>JAT</td>
<td>Yugoslavia</td>
<td>2006</td>
<td>Strategic analysis</td>
</tr>
<tr>
<td>Polynesian Airlines</td>
<td>Samoa</td>
<td>2005</td>
<td>49% sold to Virgin Blue</td>
</tr>
<tr>
<td>Cameroon Airlines</td>
<td>Cameroon</td>
<td>2005</td>
<td>Awarded but cancelled by Govt.</td>
</tr>
<tr>
<td>Air Tanzania</td>
<td>Tanzania</td>
<td>2002</td>
<td>49% sold to SAA</td>
</tr>
<tr>
<td>Kenya Airways</td>
<td>Kenya</td>
<td>1996</td>
<td>76% sold to KLM, financial investors</td>
</tr>
</tbody>
</table>
MIGA GUARANTEES

Guarantees provided by the Multilateral Investment Guarantee Agency (MIGA) cover projects in a broad range of sectors, with projects in infrastructure accounting for an important share of the agency’s portfolio. Infrastructure development is an important priority for MIGA given the estimated need for USD 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. MIGA is currently involved in two aviation projects: the Queen Alia International Airport and the Madagascar Airports.

JORDAN
Queen Alia International Airport (14068)

Project Description
On 30 March 2018, MIGA agreed to issue guarantees of up to USD 195,154,839 to Meridiam Eastern Europe Investments 2 SAS (Meridiam) of France for its equity/quasi-equity investment into Airport International Group (AIG), the current concessionaire of the Queen Alia International Airport (QAIA) in Jordan. The guarantees are issued for a period of 15 years against the risks of Transfer Restriction, Expropriation, War and Civil Disturbance and Breach of Contract.

The project consists of the acquisition by Meridiam of a 32% stake in AIG, which entered a 25-year concession agreement with the Government of Jordan in 2007 to rehabilitate, expand and operate QAIA with the possibility to extend the concession by an additional 5 years (until 2037).

Environmental Categorization
The project is a category B under MIGA’s Policy on Environmental and Social Sustainability.

Development Impact
The proposed investment by Meridiam will enable capital expenditures to be directed towards optimizing the commercial activities of Jordan’s principal airport (e.g. duty free shopping, specialty retail, food and beverages) which is expected to lead to higher non-aeronautical revenues, thereby generating additional revenues for Jordan over the duration of the REOA while enhancing the passengers’ travel and retail shopping experience. The airport is an important infrastructure asset for Jordan, used by over 7 million passengers in 2017, supporting the country’s economic growth and development, notably through the tourism sector. The acquisition is expected to reinforce the role of QAIA, consistent with the Jordan Economic Growth Plan spanning 2018-2022. The acquisition will support existing and new direct employment opportunities at QAIA, as well as indirect employment by domestic suppliers and service providers.

MADAGASCAR
Madagascar Airports (13482)


The project consists of the financing, rehabilitation, expansion, operation, and maintenance of the Ivato airport in Antananarivo and the Fascanair airport in Nosy Be, which are currently being managed by the state-owned enterprise Aéroports De Madagascar (ADEMA). Works include: (i) works at Ivato in preparation of the Francophonie summit (expansion of apron and presidential pavilion as well as establishment of a dedicated process path in the existing terminal for arriving/departing delegations), to be held in Antananarivo (the country’s capital) at the end of November; (ii) construction of a new passenger terminal at Ivato airport and limited refurbishment works in the existing terminal; (iii) renovation of the runway and Tarmac II to host aircrafts Code E and one Code F at Ivato; (iv) renovation of the runway and limited expansion of the current passenger terminal.
at Fascene airport; and (v) rehabilitation of landside facilities at both airports, including the construction of new wastewater treatment plants, improvement of the existing incinerator at Fascene airport to meet emission standards, improvement of surface water drainage, construction of a new waste water treatment plant and installation of an oil water separator at Ivato airport.

**Environmental Categorization**

The project is a category A under MIGA’s Policy on Environmental and Social Sustainability.

**Development Impact**

The project’s major expected development impact is to help upgrade and improve Madagascar’s most important international and local gateways by implementing much-needed investment, delivering better services, and offering more efficient air travel options. It will thus contribute to facilitating tourism, a key sector for unlocking economic growth in the country, as well as helping develop linked economic activities and creating jobs. The project is also expected to have a significant demonstration effect for investors in the country as well as provide a platform for the implementation of further public-private partnerships.

MIGA’s proposed support for this investment is aligned with the Agency’s priorities of supporting investments in countries eligible for financing from the International Development Association as well as conflict-affected states. It is also aligned with the 2015 World Bank Group Systematic Country Diagnostic for Madagascar, which emphasizes the importance of unleashing private sector potential and the financing of high-impact investments in the country.

Contact person for MIGA portfolio information is Damien Matthias Valentin Boucher at dboucher@worldbank.org.
Navigating Beyond COVID-19: Airline Recovery and Regulatory Reform Opportunities in Southern Africa September 2022

The report titled "Navigating Beyond COVID-19: Airline Recovery and Regulatory Reform Opportunities in Southern Africa" examines the challenges and opportunities for airline restructuring and regulatory reform in the Southern African region, focusing on Botswana, Eswatini, Lesotho, Namibia, and South Africa. This comprehensive analysis aims to explore policy and operational strategies that can help rebuild a safe and competitive air transport sector in the aftermath of the COVID-19 pandemic.

The Impact of COVID-19 on Air Transport

The COVID-19 pandemic has posed an existential threat to the air transport sector worldwide, and Africa has been no exception. The pandemic resulted in a dramatic decline in air travel, with international passenger numbers in Africa plummeting by 70.5% and domestic travel falling by 63.2% in 2020. This downturn significantly impacted economies that heavily depend on travel and tourism, leading to a substantial reduction in tourism revenue. In Southern Africa, the contribution of tourism to the gross domestic product (GDP) was halved, with tourism receipts falling to $13.26 million in 2020. The aviation sector also saw a sharp reduction in employment, further exacerbating the economic fallout from the pandemic.

The pandemic's impact was further compounded by the identification of new COVID-19 variants, such as the Beta and Omicron variants, which led to significant travel bans and restrictions. These measures severely affected the region's connectivity and tourism, making recovery even more challenging. By December 2021, 90 countries had implemented travel bans on South Africa, which had become a major source of the new variants. This isolation from key tourism source markets dealt a severe blow to the region's tourism and aviation sectors.

Government Support and State-Owned Airline Challenges

Globally, airlines have received substantial government support to cope with the pandemic's impact, totaling USD 211 billion in confirmed aid and USD 9.2 billion in tentative support by May 2022. However, African airlines received a disproportionately small share of this aid, reflecting the constrained fiscal space of African governments and their limited willingness to rescue the sector. African airlines received only USD 4.9 billion in confirmed aid, representing 2.8% of the global total. This limited support has primarily focused on a few major carriers, leaving out critical infrastructure providers such as airports and air navigation services, as well as other segments of the aviation supply chain.

State-owned airlines in Southern Africa have long faced structural inefficiencies, high costs, and political interference, leading to poor financial performance and a reliance on government bailouts. Air Botswana, Air Namibia, and South African Airways (SAA) have struggled with elevated costs, bloated wage bills, and unsuccessful turnaround strategies. These airlines have been unable to generate meaningful positive returns due to their structural inefficiencies and weak governance. The pandemic further exacerbated these challenges, pushing some of these airlines to the brink of insolvency. For instance, SAA was placed under an insolvency protection mechanism in December 2019, and Air Namibia was liquidated in February 2021.

The Need for Airline Restructuring

The report emphasizes the urgent need for restructuring state-owned airlines to foster a more sustainable and competitive aviation sector. The new realities created by the pandemic should serve as catalysts for business model improvements. This entails dropping unprofitable routes, rightsizing resources, and restructuring debt obligations. Allowing privately owned or publicly traded airlines to op-
erate within an integrated domestic area comprising the Southern African states could eliminate the need for liquidity injections from state budgets. Smaller aviation markets, such as Botswana, Namibia, Eswatini, and Lesotho, could consider creating a transregional air operator to enhance connectivity and operational efficiency.

Instead of running airlines, the state’s role should shift towards ensuring a legislative framework and creating or empowering responsible governmental agencies to coordinate and manage the implementation of regional aviation policies. Restructuring state-owned carriers should be a priority, establishing the minimum economic scale of activities as part of upfront funded restructuring plans, and releasing funding upon successful completion of specific reforms. Transparency in airline board management composition, accountability, and responsibilities, as well as public disclosure of annual financial and operational reports, are key policy options for improving sector governance.

**Liberalization and Private Sector Participation**

The report also highlights the importance of further liberalizing the African market and allowing greater participation by non-African airlines to stimulate competition and growth. Further liberalization of the intercontinental market involves a delicate balancing act between jump-starting the tourism and travel sector and protecting home-based carriers and airports. Encouraging foreign airlines to enter and compete is essential for tourism development, particularly in generating inbound tourists from significant tourism source markets. Foreign airlines, with their large network scope, can incur incremental route costs rather than the full cost of limited operations, which is typical of local airlines.

Additionally, encouraging more private sector participation is crucial for the sector's sustainable development. The entry and expansion of private sector airlines following the demise of state-owned airlines in South Africa and Namibia demonstrate that connectivity previously provided by state-owned airlines can be replaced by private sector and foreign airlines without any subsidies. This implies that state-owned carriers are not indispensable. Once market demand is established and market entry is possible, new suppliers will enter the market, providing the economic benefits previously attributed to state-owned airlines.

**Regulatory Challenges and Reform Opportunities**

While the pandemic has exacerbated the region's perennial regulatory challenges, it also presents opportunities to address some of these issues. Improving safety standards and regulations, and pooling resources for regional oversight, are critical for the sector’s recovery. The report suggests that grouping like-minded states to pool their resources into regional institutions can help optimize resources and achieve economies of scale. Strengthening regional institutions, such as the Southern African Development Community (SADC) Aviation Safety Organization (SASO), can provide much-needed oversight functions and relieve pressure on training investment and maintenance of experienced personnel.

The report concludes with several policy recommendations, including deregulating domestic air transport markets, improving regulatory frameworks, and fostering greater transparency and accountability. Establishing Strategic Equity Partners (SEPs) and privatizing state-owned airlines, where feasible, are high-
lighted as key strategies for improving airline performance and reducing dependence on state aid. By implementing these recommendations, Southern African countries can rebuild a more competitive, efficient, and sustainable air transport sector that meets international, regional, and local demand.

In summary, the COVID-19 pandemic has significantly disrupted the air transport sector in Southern Africa, highlighting the urgent need for restructuring and regulatory reform. By leveraging the opportunities presented by the crisis, the region can foster a more resilient and competitive aviation industry that supports economic growth and development.

Contact persons are Megersa Abate at mabate@worldbank.org, Charles E. Schlumberger at cschlumberger@worldbank.org, and Caroline Otonglo at cotonglo@worldbank.org.

**Conceptual Document: World Bank Grant for Caribbean Islands Study**

*June 2023*

The ACI-LAC (Airports Council International) is seeking to collaborate with the Jamaican government to secure a WB grant dedicated to researching climate resilience and sustainability practices for Caribbean airports. This initiative aims to identify essential investments to enable these airports to achieve net-zero emissions, enhance climate resilience, adapt to climate change, and prepare for next-generation sustainable aircraft.

Given the critical role of aviation in the Caribbean - serving as the primary mode of transport to the islands and a vital conduit for tourism - the significance of this study cannot be overstated. However, the region’s airports face substantial vulnerabilities due to their exposure to climate change and extreme weather phenomena, with an expected increase in the frequency and intensity of tropical storms alongside rising sea levels. These challenges necessitate a design paradigm for airport infrastructure that can withstand such adverse conditions.

Economically, Caribbean airports encounter challenges, chiefly due to their small scale, which impedes profitability, and the high cost and environmental impact of energy reliance on fossil fuels. Yet, there is a silver lining in the potential for harnessing renewable energy sources, such as solar and wind power, which could mitigate both economic and environmental pressures.

Globally, airports have pledged to achieve Net Zero Carbon emissions by 2050, a commitment underscored by the ACI through its support for the ICAO Long Term Aspirational Goals (LTAG) and the launch of the Airport Carbon Accreditation (ACA) program in 2011. This program, specifically tailored for airports, aims to map and manage carbon emissions, focusing on direct or indirect emissions under the control of airport operators (scope 1 and scope 2 emissions) and also seeks to support the broader decarbonization of aviation emissions.

The proposed study will therefore focus on determining:

(i) The necessary investments to ensure airport infrastructure’s climate resilience and adaptation to climate change.

(ii) Opportunities to maximize power generation from renewable energy sources.

(iii) A strategic roadmap and required investments for attaining net-zero emissions by the set 2050 target.

(iv) The infrastructure and support systems needed for the introduction of SAF and the integration of new-generation sustainable aircraft into the Caribbean’s aviation sector.

This research will be instrumental in guiding Caribbean airports towards a sustainable and resilient future, aligned with both regional aspirations and global environmental commitments.

**Ongoing Sustainable Aviation Fuel Initiatives at the World Bank**

The World Bank is at the forefront of efforts to enable developing countries to participate in the production and supply of Sustainable Aviation Fuels (SAF), a key factor in the aviation industry’s decarbonization endeavors. Our work spans knowledge generation and analytical studies, as well as investment in SAF projects.

(i) **Knowledge and Analytical Work:**

1. **Analytical Report on SAF Investment and Financing:** The WB is developing an analytical report that offers a comprehensive view on SAF investment decisions and financing frameworks in developing countries. This includes a novel, bottom-up analysis of regulatory frameworks, potential SAF demand, and feedstock supply possibilities.
2. **Feasibility Studies in Select Countries**: In-depth studies are underway in Kenya, South Africa, Nigeria, Ethiopia, and Colombia to assess the feasibility of local SAF production, considering various production pathways and feedstocks.

3. **Regional Financing Facility**: The WB is evaluating the potential for a regional financing facility to support SAF production in World Bank client countries. This facility would act as an aggregator for supply, demand, and funding, offering services across five main areas to facilitate SAF production expansion.

4. **Development Partners Coalition**: Efforts are being made to build a coalition with development partners such as the US FAA, Boeing, GIZ, and ICAO, EASA to bolster SAF initiatives.

(ii) **Investment Initiatives**

(iii) **IFC SAF Projects**: The International Finance Corporation is collaborating with multinational energy companies to develop SAF projects focused on feedstock production and local SAF supply chain sustainability. The main one is a recent announcement between IFC and the Italian Climate Fund Partner with Eni to Support Biofuel Production, Farmers in Kenya. [https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=28171](https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=28171)

Contact person is Megersa Abate at mabate@worldbank.org.

**Handbook for the Development of Air Transportation (P176540)**

The World Bank Transport Global Practice intends to produce a Handbook for the Development of the Air Transport Sector. The overall objective of this knowledge product is to build, expand, and disseminate core sector concepts and good practices fundamental to the development of air transport. The rationale for providing such a handbook, both internally and externally, is the current lack of understanding among many transport generalists, government and civil service professionals, and the general public about air transport sector challenges. The intended audience consists of development and sector professionals in government and the private sector, primarily in developing and emerging markets.

The Handbook aims to provide a concise yet comprehensive guide to the foundational principles of air transport by outlining the basic elements of the air transport system, including policy, regulatory, and operational considerations in the prospects of sustainable solutions in air transport provision. By providing...
knowledge to practitioners and policymakers worldwide, the Handbook is relevant to both developing and advanced economies. It is designed as a reference book to provide a high-level overview of sector dynamics while also directing readers to other technical resources as needed. It also discusses key emerging issues such as aviation decarbonization and new technologies.

The Handbook begins with an overview of the air transport system. It approaches key aspects of sector outlooks from the top down, using the lens of national aviation policy settings such as air transport development strategies, political-economic endorsements, and state obligations in meeting international commitments. It addresses civil aviation regulations and oversight, including an introduction to international standards and recommended practices established by the International Civil Aviation Organization (ICAO), requirements for enabling legislation, the role of civil aviation authorities as guided by national safety regulatory requirements, and expectations of state safety and state security programs.

The Handbook takes into account air transport finance and economics, including competition policy (domestic air traffic) and access rights (international air traffic), air service agreements, and open skies policies. An overview of demand forecasting for both passengers and freight is presented, as well as revenue structures for airlines, airports, and air navigation service providers, including the establishment of fees and levies. Aspects of corporate governance structures, oversight and compliance requirements, infrastructure and facilities, business development, finance, economics, and operational management considerations are covered in relevant chapters on air traffic management, airports, and airlines.

The Handbook also encompasses regulatory and operational aspects of measuring and managing environmental impacts such as noise, emissions, and water pollution, as well as sector implications for climate change such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), the Airports Council International Airport Carbon Accreditation Programme, and sector contributions to National Determined Contributions (NDCs).

Contact persons are Charles E. Schlumberger at cschlumberger@worldbank.org and Chris J. De Serio at cdeserio@worldbank.org.
Air Carrier Advisory System  
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 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 the 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 a total of 310,611 flights booked by American Express for Bank staff in Fiscal Year 2023 (from HQ), representing a post-COVID increase in travel by 512 percent compared to Fiscal Year 2022, exceeding pre-COVID levels. The majority of flights booked were with airlines considered “good to fly”. This data does not capture trips arranged in the regions.

Travelers should be aware that surface transportation may not always be possible or may represent more risks than air travel in some client countries. The advisory team continues to provide on-demand assessments and safety advice for operational staff.

Contact person is Aigerim Shalekenova at ashalekenova@worldbank.org.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>RECOMMENDATION FOR STAFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Good to fly.</strong> The Bank has no objection to using these airlines.</td>
</tr>
<tr>
<td>All airlines that are industry certified by having passed an IATA IOSA audit, unless subsequent safety experience indicates a safety problem.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Good to fly.</strong> The Bank has no objection to using these airlines.</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
| 3           | 3a. Airlines that do not qualify for Category 1 or 2, but have been reviewed by the Bank’s air transport specialist and considered good to fly.  
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.  
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. |
| All airlines that are not in (1) or (2) above, or are on any blacklists, or are deemed to be unsafe for other reasons. |
Charles E. Schlumberger (CES) participated as a keynote speaker at the FRA Air Cargo Conference, where he provided an overview of the current state of the air transport industry, emphasizing air cargo development. CES highlighted several key points in his presentation:

(i) Global air cargo thrived during the COVID-19 pandemic but is now facing a risk of overcapacity.

(ii) Passenger air travel is on the rise but is dependent on economic factors such as GDP, stock markets, and inflation.

(iii) The war in Ukraine has introduced competitive distortions, longer routes, increased fuel costs, and economic uncertainties.

(iv) The economic outlook remains gloomy and uncertain, raising questions about the future demand for air cargo.

(v) There is growing pressure to implement environmental measures in air transportation, which will increasingly impact the global air transport industry.

CES also interviewed several candidates to author the air cargo chapter in the ASA Handbook for the Development of Air Transport. The shortlisted candidates are Prof. Dr. Hans-Martin Niemeier and Prof. Dr. Karl-Rudolf Rupprecht, with further evaluations to follow.

Roundtable on “Low Carbon Fuels for Aviation and Maritime Transport: How to Leverage Cross-Modal Synergies to Accelerate the Transition?”

27 February 2023

On 27 February 2023, a notable roundtable titled “Low-Carbon Fuels for Aviation and Maritime Transport: How to Leverage Cross-Modal Synergies to Accelerate the Transition?” was hosted by the Center on Global Energy Policy at Columbia University’s School of International and Public Affairs, in collaboration with the University of California, Davis’s Institute of Transportation Studies. Megersa Abera Abate and Rico Salgmann attended the event, which aimed to explore the synergies between aviation and maritime transport in the transition to low-carbon fuels.

One of the key outcomes from the session relevant to aviation was the emphasis on the partnership between the Federal Aviation Administration (FAA) and the WB. Kevin Welsh, the Executive Director of the Office of Environment & Energy at the FAA, highlighted the collaboration under the ASCENT Center of Excellence’s R&D efforts for Global Sustainable Aviation Fuel Supply Chain Development in the Global South. This initiative seeks to enhance the FAA’s endeavors by supporting a multi-university project that investigates SAF supply chains worldwide.

The roundtable also illuminated the position of the United States and the European Union as pioneers in scaling up SAF, albeit through different policy and investment incentives. The United States focuses on tax incentives for SAF producers and blenders, whereas the European Union prefers using SAF usage mandates. Both regions have committed billions of dollars to R&D and subsidies to enhance the technology readiness of low-carbon fuels, a strategy that remains out of reach for many developing nations.

Moreover, emerging countries are starting to play a significant role in the SAF value chain, as exemplified by Argentina’s involvement as a supplier of feedstock. British Petroleum has been sourcing Brassica Carinata from Argentina for processing in the United States, representing a potential model that could benefit other client countries.

The event underscored the vital opportunity for World Bank leadership in facilitating the aviation sector’s decarbonization, particularly in developing countries. With the aviation market’s center of gravity shifting eastward, where China and India are expected to become global aviation centers before the mid-century, achieving the industry’s net-zero targets heavily relies on SAF availability in these regions. Given that only 10% of upcoming SAF facilities are located in non-OECD countries, there is a pressing need for the WB to collaborate with development partners to foster early market scale-up and cost reduction on SAF in emerging economies.

This roundtable provided valuable insights into the current state and future prospects of low-carbon fuel transition in aviation and maritime transport, highlighting the significant role of cross-modal synergies, international cooperation, and development partnerships in accelerating the path to a sustainable and de-carbonized transport sector.
First World Bank and Boeing Meeting
21 March 2023

The objective of the recent meeting was to establish a partnership and identify cooperative avenues in the global initiative to decarbonize aviation, primarily through the development and scale-up of SAF and the crafting of supportive policy frameworks at the country level. Discussions also centered on backing project feasibility studies and leveraging financing from Multilateral Development Banks for the expansion of SAF production.

The context of these discussions highlights the urgent need to extend SAF production to emerging and developing markets, which, despite accounting for a substantial portion of global air traffic with expected growth, have seen minimal SAF investment compared to high-income regions like North America and the European Union. The potential for these markets to harness renewable energy or biomass resources for SAF production presents a significant opportunity for sustainable air travel and economic benefits through green industrialization.

However, the development of a policy and investment framework conducive to large-scale SAF production remains a critical challenge. Factors such as a supportive regulatory environment, proximity to major airport hubs, and access to ample feedstock are essential for realizing the potential of SAF. In response to this, Boeing and the WB are exploring a partnership to address these bottlenecks, aiming to facilitate the transition to sustainable aviation and stimulate local economic growth through SAF production.

The proposed next steps to advance this agenda include crafting a narrative for sustainable air transport in emerging markets, potentially highlighted at Clean Energy Ministerial conventions and other international forums. Furthermore, the establishment of an Aviation Decarbonization Trust Fund within the WB’s Global Facility for Decarbonizing Transport is suggested, which could fund project design and implementation support for SAF deployment in selected countries. Collaboration on creating an investible framework for SAF production is also envisioned, aiming to de-risk investments and design financial products conducive to green investment in the sector.

Additionally, Boeing has developed the Cascade modeling tool, an emissions modeling tool to assess the impact of various SAF deployment scenarios. This tool could be instrumental in understanding the potential emission reductions achievable through SAF, offering valuable insights for policymakers and industry stakeholders.

Overall, the meeting underscored the collaborative effort required between Boeing, the WB, and other stakeholders to propel the adoption of SAF in emerging and developing economies, aligning with global efforts to mitigate climate change and promote sustainable aviation practices.

ICAO High-Level Exchange of Views on the Challenges and Opportunities for Aviation and Financial Institutions on Aviation Decarbonization, Canada
27 - 28 March 2023

Charles E. Schlumberger and Megersa Abera Abate (MAA) from ITRGK traveled to Montreal, Canada, to participate in the International Civil Aviation Organization’s (ICAO) Council meeting titled “High-level Exchange of Views on the Challenges and Opportunities for Aviation and Financial Institutions on Aviation Decarbonization.” This meeting included high-level representatives from 36 ICAO Member States, various Multilateral Development Banks (MDBs) such as the African Development Bank Group (AfDB), Emirates Development Bank, European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), and Inter-American Development Bank (IDB), along with industry representatives from the Air Transport Action Group (ATAG).

During the Council session, CES presented on the requisites for assessing financing opportunities in transport investment, with a special focus on aviation decarbonization. He highlighted the Bank’s aviation sector investment portfolio and instruments available to stimulate and support investments in this area. Key points included findings from the Bank’s recent report on Sustainable Aviation Fuel (SAF) and ongoing feasibility studies for SAF in Kenya, Zambia, India, and Colombia.

Highlights from other MDBs included EBRD’s USD 2 billion aviation sector portfolio and plans to invest in SAF production in Kazakhstan. EIB, despite previously avoiding airport expansion projects, continues to pursue air transport decarbonization investments, recently signing a EURO 120 million loan agreement with Spanish oil refinery Repsol for an advanced biofuels plant. IDB supports Chile in preparing a SAF
roadmap and integrates SAF strategy components in its airport projects. Emirates Development Bank expressed strong interest in supporting SAF implementation, while AfDB focuses on climate finance and air transport decarbonization measures alongside liberalization policies in Africa.

Council members from various countries inquired about potential collaboration between ICAO and MDBs. CES emphasized the role of MDBs in research, policy advice, and financing PPP ventures for SAF production. He stressed that SAF viability depends on direct subsidies from carbon taxes or state mandates, as MDBs cannot finance SAF production to make it competitive with jet fuel.

The mission also included bilateral meetings. CES and MAA met with ICAO Secretary General Juan Carlos Salazar to discuss how the Bank could support ICAO’s efforts to establish a financing framework for SAF production in member states. They agreed on the critical role of public sector policies in attracting private investment for SAF. Discussions with the ICAO Technical Cooperation Bureau (TCB) explored collaboration on policy recommendations for SAF implementation.

Representatives from ICAO contracting states also engaged with the mission. In Kenya, CES discussed with Ms. Charity Musila the country’s ambitions to establish Africa’s first SAF refinery and efforts to decarbonize air transport. They reviewed ongoing studies to update the 2018 feasibility study and explore alternative feedstocks for SAF. In Ethiopia, CES met with Ms. Hiwot Mosisa Deressa to discuss local SAF production feasibility, building on a recent study funded by Boeing. Mr. Brahim Kane from Mauritania shared the country’s plans to produce e-SAF from green hydrogen, supported by a new USD 34 billion project. A meeting with India’s representative was rescheduled to 31 March 2023, to discuss the WB’s research on SAF production in India.

The next steps include consulting with Council representatives from India, Colombia, and Kenya to establish concrete collaboration areas under the Global Unit’s new ASA on SAF scale-up. Additionally, the mission will work on details of a joint initiative with ICAO’s Technical Cooperation Bureau to support client countries in SAF production and scaling up.

This mission underscored the importance of strategic partnerships and policy frameworks in advancing aviation decarbonization efforts, highlighting the collaborative role of MDBs, ICAO, and member states in achieving sustainable air transport.

**ICAO Global Implementation Support Symposium, Seoul (Korea) 27 May 2023**

Charles E. Schlumberger traveled to Seoul, Korea and participated in the ICAO’s Global Implementation Support Symposium (GISS) on a panel discussing Sustainable Aviation Fuels (SAF). Key outcomes of the GISS included a ministerial-level recognition of the importance of ICAO standards and strategies for ensuring the safe, secure, and sustainable global air transport network. Thirteen states at the Ministerial Roundtable highlighted the critical role of ICAO in supporting the deployment of sustainable aviation fuels.

Ministers called for ICAO to facilitate funding initiatives to enhance global access to new SAF technolo-
gies. CES emphasized that funding for SAF is primarily a private sector opportunity, and the increased costs would ultimately be borne by consumers. However, the World Bank Group (WBG) can assist in analyzing policy environments and the financial feasibility of SAF production in client countries. CES suggested that establishing Public-Private Partnerships (PPPs) in collaboration with the International Finance Corporation (IFC) might be a viable path for the WBG to support the decarbonization of air transport.

The three-day event, attended by over 1,000 stakeholders, led to ICAO’s commitment to collaborate more closely with the international aviation community to enhance capacity. This commitment was underscored by the presentation of a modernized brand for ICAO services, to be provided by the new Directorate for Capability Development and Implementation (formerly Technical Cooperation Bureau, TCB). CES followed up with TCB on the pending mandate for establishing an Air Accident Investigation Unit in Nepal, with TCB promising to expedite the administrative matters, including the legal review of the engagement terms with the World Bank.

IATA Annual Meeting, Istanbul, Türkiye 04 to 06 June 2023

CES represented the World Bank at the International Air Transport Association (IATA) Annual Meeting and engaged with client airlines. Marie Owens Thomsen, SVP Sustainability & Chief Economist at IATA, presented the state of the air transport industry. Highlights included an expected increase in airline industry net profits to USD 9.8 billion in 2023, significant improvements in operating profits, and a recovery in passenger travel to near pre-pandemic levels. Cargo volumes, however, were expected to decline slightly.

Willie Walsh, Director General of IATA, concluded that the airline industry is on a path to a profitable, safe, efficient, and sustainable future, with passenger traffic rebounding to over 90% of 2019 levels. IATA also released strategic roadmaps detailing critical steps for the aviation industry to achieve net-zero carbon emissions by 2050.

These roadmaps address aircraft technology, energy infrastructure, operations, finance, and policy considerations. The discussion highlighted the challenges of ramping up SAF production, which is expected to provide about 62% of the carbon mitigation needed to achieve net-zero by 2050. CES noted that while SAF is a drop-in solution, its implementation depends heavily on policy, aircraft technology, energy infrastructure, financing, and operations.

During Annual Meeting, which was moderated by Richard Quest (CNN), IATA announced the 2023 winners of the Diversity & Inclusion Awards, recognizing outstanding contributions in the field by individuals and teams. The winner for being an inspirational role model was Poppy Khoza, the Director of Civil Aviation, South African Civil Aviation Authority (SACAA).

ACI–LAC General Aviation Conference Jamaica 19 - 21 June 2023

Charles E. Schlumberger embarked on an Air Transport Mission to Kingston, Jamaica between 19 - 21 June 2023, with the primary goal of moderating a panel on SAF at the first General Aviation Conference organized by the Airports Council Latin America. This event, held in collaboration with the Airports Authority of Jamaica, aimed to engage discussions on decarbonizing aviation in the Latin America and Caribbean region, a conversation that aligns with global efforts by ICAO, and other bilateral initiatives worldwide.

The conference, termed ACI General Aviation Day, was inaugurated by the Honorable Daryl Vaz, Minister of Science, Energy, and Technology of Jamaica, and drew key aviation sector executives, national civil aviation authorities, and experts from the region, including representatives from the Caribbean, Argentina, Uruguay, Venezuela, and the United States of America. Discussion spanned operational and regulatory challenges in general aviation, future air mobility, sustainability, and the sector’s economic impact on tourism.

Key insights from the conference highlighted the essential role of general aviation in connecting communities and spurring economic growth, as noted by Rafael Echevarne of ACI-LAC. Challenges noted include the high operational costs for smaller general aviation operators and the significant economic benefits driven by GA in regions like the Bahamas. The Dominican Republic’s development of air connectivity was showcased as a success story, particularly during the COVID-19 pandemic, emphasizing general aviation’s role in economic development, pilot training, and disaster relief.
The sustainability panel, hosted by CES, focused on the limited availability of SAF in the region, the potential for electric and eVOTL aircraft to enhance the interisland connectivity, and the challenges and opportunities in producing and importing SAF. The conference also addressed the need for improved regional connectivity in the Caribbean, exacerbated by the recent challenges faced by regional carriers like LIAT.

The mission also explored the potential for a comprehensive study on air connectivity in the Caribbean, focusing on traffic flows, market access, sector fees and taxes, climate-change measures, regulatory oversight, new technology potential, and financing access for operators. A concept note is under preparation by the WB to support sustainable air connectivity, potentially incorporating capacity building, airport carbon accreditation, safety certification, and development of PPP models for financing.

ACI-LAC has proposed partnering with the Jamaican government to secure a WB grant for a study on climate resilience and sustainable aviation for Caribbean airports, aiming to identify necessary investments for net-zero emissions, climate resilience, and adaptation. This initiative, aligned with the WB’s ongoing efforts, presents an opportunity for collaborative research, leveraging ACI-LAC’s knowledge and data.

The next steps involve continuing the preparation of the regional air connectivity concept note, with a recommendation to include the Dominican Republic given its significant role in regional aviation.
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 the 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 patients whose conditions could worsen if exposed to the recirculated air on commercial flights, or who need efficient point-to-point transport.

One example of such an Angel Flight mission, which was carried out by Charles E. Schlumberger, Lead Air Transport Specialist, was a flight to transporting a patient from Newberry County Airport in South Carolina for a hospital appointment in Philadelphia.

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
In 2024, the airline industry is expected to fully recover from the Covid-induced crisis, which triggered a 93% drop in RPKs in April 2020. However, the recovery is uneven as the overall network of air connectivity has changed since 2019.

China’s international traffic recovery has been slower due to the delayed easing of travel restrictions, economic uncertainties, and geopolitical tensions. However, domestic traffic surged to a new record level thanks to internal tourism. Generally, air traffic between Asia and Europe remains hampered by the war in Ukraine. Nevertheless, most regions are expected to surpass 2019 levels in 2024, with many countries experiencing continuous growth in air travel. Connectivity to the Asia-Pacific region should also be fully restored in 2024.

The industry forecasts a 10.4% year-on-year increase in total passenger numbers for 2024, or an 11.6% increase in RPKs. Africa, however, may be the only region likely to experience a contraction in passenger numbers in 2024, despite strong traffic growth in 2023. The Middle East is expected to benefit significantly in 2024, enjoying a favorable economic environment despite geopolitical tensions. Europe is also expected to see solid passenger growth, particularly in smaller economies. Asia-Pacific is expected to experience the highest growth in air traffic at 17.2% in 2024, although from a lower base compared to other regions. China and India are the main contributors to air traffic development in this region.

Global air cargo capacity, measured in Available Cargo Ton Kilometers (ACTKs), surpassed 2019 levels in 2023, especially with the reopening of China’s borders, which restored passenger aircraft belly-hold capacity on international routes. However, this led to a decline in the global share of air cargo transported on dedicated freighters to pre-pandemic levels. This trend of restoring the traditional ratio between dedicated freighters and passenger belly-hold capacity is expected to continue in 2024. Nevertheless, global air cargo capacity is expected to continue expanding in 2024, albeit at a slower rate than in 2023.

Global air connectivity is forecasted to reach a record high level in 2024. In 2023, connectivity of international and domestic routes grew by 28% and 10%, respectively, with the Asia-Pacific markets surging by 62% following the removal of travel restrictions. This trend, along with the growth in North American and European international connectivity by 18% and 17%, respectively, is expected to continue in 2024.

The anticipated growth of the global aviation industry bears its challenges. In terms of safety, most countries have satisfactory oversight regimes, and accident rates are at historic lows. However, smaller developing countries in Africa and Latin America still struggle to implement compliant regulatory oversight systems. Another challenge is aging or inadequate airport infrastructure, often in countries where air traffic is too low to attract large private sector investments.

Globally, the industry’s focus is on sustainability, given the outcome of COP28, which calls on nations to transition away from fossil fuels. This reinforces the need to scale up the production of renewable fuels globally, including Sustainable Aviation Fuel (SAF).

The WBG will continue to address these development challenges in FY24. Several ongoing and new projects in all regions will focus on aviation safety and infrastructure enhancement. Examples of such projects are in Cameroon, Madagascar, Rwanda, and Tanzania, as well as in the Caribbean and the Pacific Islands. This will be supported by targeted technical advisory and policy advice in countries such as Jordan, Tajikistan, and Uzbekistan.

IFC will continue to finance sustainable private sector projects in the aviation sector, primarily airport infrastructure. Recent projects include Almaty Airport in Kazakhstan and Sofia Airport in Bulgaria. Where warranted, MIGA will provide guarantees to facilitate private investments. Finally, sector research will focus on sustainability, particularly on how the production and application of SAF can be fostered with the objective of decarbonizing air transportation.
Photography Credits:

- Page 27: Fence at Kamembe International Airport, photo courtesy of the late Heinrich C. Bofinger
- Page 61: Airport, Credit: Phil Mosley / Unsplash

All other pictures, graphics or designs belong to the WBG and the contributors of this report.