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LAS

Session 3 – Part II: Navigating Emerging Environmental Topics at Airports



Environmental Trends and Challenges at Dakar Airport

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Airport Presentation



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Airport Operations Impacts



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Community Engagement



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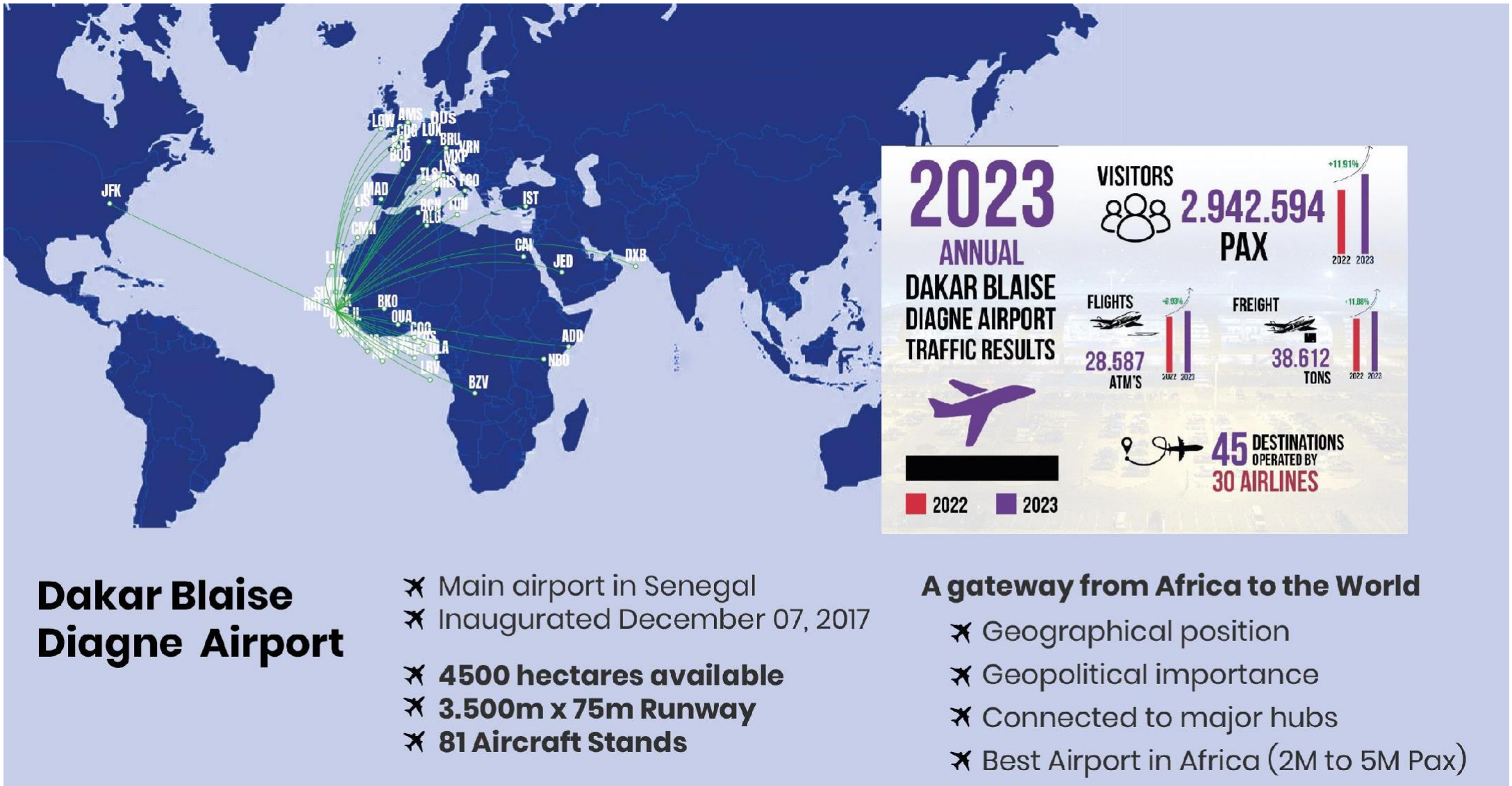
Net Zero Goal



VI

Sustainable Path Forward





Risk and Impact Identification

Normal Impact

Engine combustion smoke emission

Particulate matter and respiratory effects of inorganic substances

Plastic waste production

Soil pollution

Wastewater generation

Eutrophication of freshwater

Accidental Impact

Oil spill

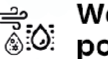
Toxicity in humans

Refrigerant gas leakage

Contribution to greenhouse effect

Improperly treated water discharge

Aquatic ecotoxicity

ACTIVITIES	ENVIRONMENT ASPECT	IMPACTS
 Aircraft movements	 Airspace occupation  Kerosene combustion fumes  Noise emissions	 Bird disturbance  Air Pollution  Global warming  Noise pollution
 Waste disposal	 Landfill discharge  CO2 emissions from fuel consumption  Exhaust smoke emission	 Water and Soil Pollution  Public nuisance  Land use  Global warming  Air Pollution
 Landscaping	 Dispersion of chemicals  Water consumption  Green waste generation  Green spaces	 Water air soil pollution  Depletion of water resources  Waste pollution  CO2 Absorption  Biodiversity Protection

Airport Environmental Plan

four key areas with general objectives:

Activities



- Limiting the **nuisance** caused to **neighbors** and airport **users** by airport **activities**
- Improving the living environment for the **surrounding population** and **airport users**

- 1 Availability of Safety Data Sheets (SDS) for chemical products 72% in 2021 versus **82% in 2022**
- 2 **100% compliance** monitoring of chemical products SDS in 2021 and 2022

- 3 Installation of **beehives**



- 4 Cartography and periodoc measures of **noise and air quality**

- 5 Development **Ethnobotanical garden**



190 trees planted with a survival rate of **90%**



- Decrease **waste volumes**
- Develop **environmentally sound waste management**

- 1 **Waste management system** (recycling bins, collection and transport by authorized service providers)
- 2 Storage of **electronic waste**

- 3 **Zero waste ambassadors** training

- 4 Recovery of **used oils and biomedical waste** by approved service providers

- 5 Reinforcement of **retention tanks** for liquids (used oils, chemicals, fuel, etc.).

- 6 Display of visuals to encourage **waste sorting**



- Guarantee **water quality**
- Optimize **water consumption**
- Diminish the **pollutant load of water discharges**

- 1 Display of visuals to encourage waste sorting
- 2 discharge area connected to the **wastewater treatment plant**



- 3 Dedicated wash area to **avoid soil pollution**

- 4 **Recycled** water for irrigation
- 5 Establish a **water quality** control plan



- Optimize **energy consumption**
- Reduce **CO2 emissions**

- 1 Replacement of the **lighting system** in the terminal and administration building with LEDs



- 2 Movement detectors Building Management System

- 3 Reduction in GWP (Eq tCO2) of refrigerant gases consumed: 1515 in 2021 compared with **1175 in 2022**

- 4 Equipment containing R22: 98 in 2021 versus **41 in 2022**

- 5 Setting up **"sharepoints"** to limit the sending and storage of electronic data



Dakar Blaise Diagne Airport



Net Zero Carbon Goal

Airports Greenhouse Gas Emissions



Scope 1: Direct emissions

- ✈ Power generators
- ✈ Fuel combustion on site
- ✈ Airport fleet vehicles
- ✈ Refrigerant losses



Scope 2: Indirect emissions

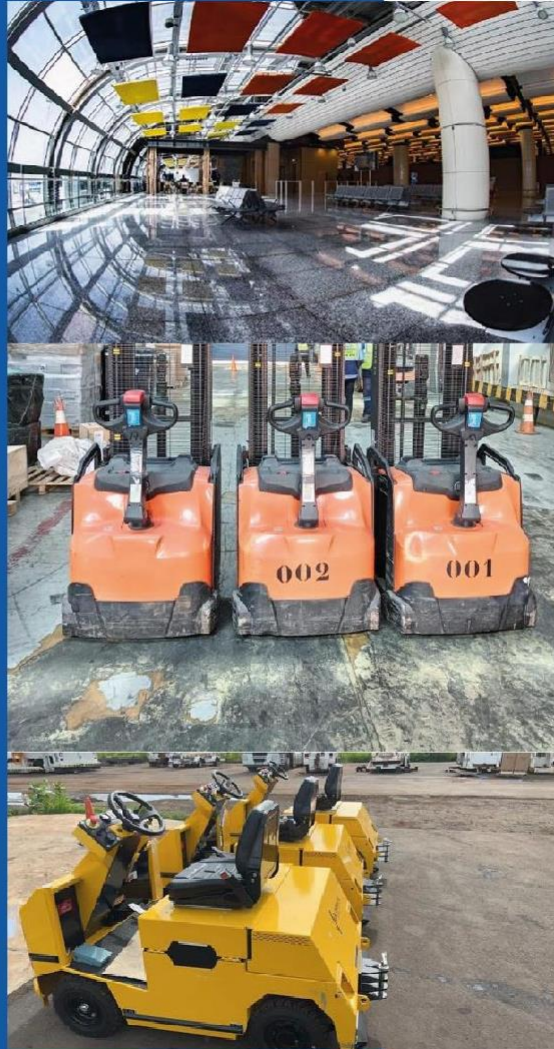
- ✈ Electricity purchased for lighting
- ✈ Electricity purchased for cooling



Scope 3: Other indirect emissions

- ✈ Flights
- ✈ 3rd parties' vehicles Ground equipment
- ✈ Off site waste management
- ✈ Staff commute
- ✈ Passenger Airport transfer





Net Zero Carbon Goal

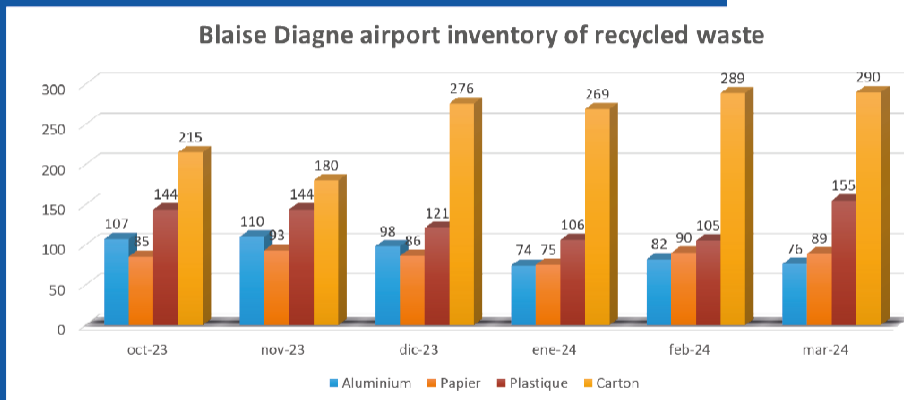
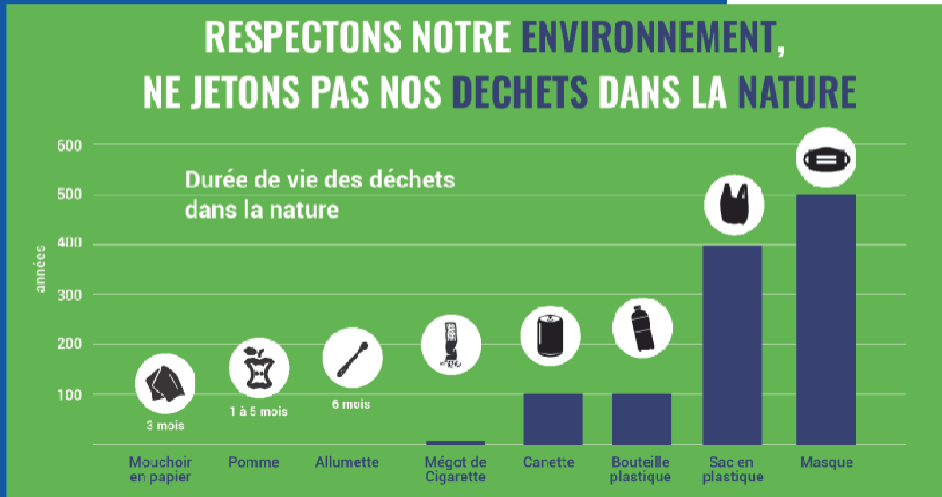
Dakar Blaise Diagne Emissions' Reduction

-  Ground handling equipment renovation
-  Apron and Terminal Lights replacement with LED
-  Reinforced Insulation and Terminal temperature monitoring
-  Energy efficiency management with BMS
-  Mass transportation for employees
-  Hybrid taxis to and from the airport (soon Regional Express Train)
-  Acquisition of PCA

Other stakeholders *under CAA SAP*

ANSP procedures

New aircrafts for National Carrier



Environmental protection

Circular Economy

Waste management

- ✈️ Recycling program
- ✈️ Airport-wide campaign to end plastic pollution
- ✈️ Training of Zero waste ambassadors for all airport stakeholders
- ✈️ Alliance with F&B concessions to compost organic waste
- ✈️ Development of urban vegetables gardens for surrounding communities



Environmental protection

Biodiversity Conservation

- ✈ Deforestation during airport construction
- ✈ Impact of operations on wildlife patterns
- ✈ Loss of Habitat for some species

Three flagship actions are currently underway

- ✈ Development of an ethnobotanical garden
- ✈ Reforestation of the resettlement site
- ✈ ecosystem restoration in Marine Protected Area



Environmental protection

Biodiversity Conservation

Actions within the airport's Area of Indirect Influence

- ✈ Reforestation of the lagoon area
- ✈ Installation of a bird observatory to help monitor migratory species
- ✈ Lagoon Signage System
- ✈ Broadcasting of awareness-raising messages on airport terminal screens
- ✈ Reforestation of mangroves;
- ✈ LAS, in its ACA program, is collaborating with renowned NGO and planning a very large carbon sequestration project



Airport Community Engagement and Social Responsibility

- ✈️ Adopt inclusive policies to ensure the participation of neighbouring communities in airport activities (safety and security awareness)
- ✈️ Promote local job creation, training of the local workforce, local procurement.
- ✈️ Work closely with local authorities, businesses and organizations to align sustainable development objectives.
- ✈️ Sustainability roadmap is an excellent opportunity to lever our influence in the community.

Airports could be the engine behind the surrounding communities' shift towards sustainable growth.

Sustainable Development Path for African airports

Work with governments and other stakeholders

- ✈ Establish a tangible mechanism for collaboration between industry regulators and airports in Africa
- ✈ Advocacy at a regional level
- ✈ Coordinated approach is essential to save resources

Enablers

- ✈ Addressed at a strategic level
- ✈ Systemic approach
- ✈ Cooperation to share resources, best practices, etc
- ✈ Collaboration between industry stakeholders
- ✈ Assistance from international organizations



Thank You

