

## Introduction to Sustainable Air Cargo Operations in Latin America

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‘We’re living within a triple planetary crisis’ UNFCC



REDUCE RISKS

REDUCE EMISSIONS

REDUCE IMPACTS

ADAPT

MITIGATE

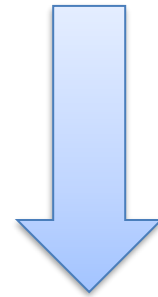
COMPENSATE

This presentation will explore the challenges, opportunities, and innovative practices and technologies that will transform the regional air cargo industry into an eco friendly, resilient and sustainable one.





“Sustainability is no longer a trend but a competitive advantage”.  
(NACO – TIACA Corporate Member)



**To be sustainable, air cargo operations in  
Latin America should focus on:**

- 1. Reducing environmental impacts**
- 2. Reducing emissions**
- 3. Improving efficiency**
- 4. Promoting economic growth**



**AIR  
TRANSPORTATION**

# Challenges in the Current Air Cargo Industry

## Aging Infrastructure

Many airports and cargo facilities are outdated, leading to inefficiencies and high emissions.

## Fossil Fuels Dependency

The industry's heavy reliance on fossil fuels contributes to its carbon footprint.

## Regulatory Hurdles

Outdated national regulations and lack of harmonization across the region.

## Limited Sustainability Awareness

Lack of environmental education, professionals and commitment from stakeholders /managers

## Others

- NOT included in the national logistics strategy. Lack of markets to develop the industry.
- Climate change impacts like flooding, heat waves, water and energy scarcity.
- Low resilience factors and ecosystems degradation with economic and social impacts.

# Regulatory and Policy Landscape for Sustainable Air Cargo



## Emissions Regulations

Stricter limits on greenhouse gas emissions and air pollution from air cargo operations.

IATA Recommended Practice 1678  
Air Cargo CO2 Emissions  
Measurement Methodology

## Industry Collaboration

Collaborative initiatives between governments, airlines, and logistics providers to develop sustainable solutions.

TIACA´s Sustainability Roadmap,  
BlueSky Program & 2024  
Sustainability Report

## Sustainability Incentives (limited)

Financial incentives and tax credits to encourage the adoption of eco-friendly technologies and practices.

Mexico´s Sustainable Transport  
Financing Program. Green loans  
based on green bonds emissions.

## Global Initiatives

Global environmental initiatives & NGOs are limiting emissions and range of actions for large sectors like air transportation.

Buckingham Palace Declaration &  
ROUTES (USAID)  
United Nations - IPCC  
Paris Agreement (CO2)

# Latam´s Industrial Development Based on Sustainability

## Policy & Foresight

Global, regional and national policies, and the international context generate opportunities and resources for sustainability industries development.

## New & Improved Infrastructure

New and improved airports and cargo terminals should adopt sustainable architecture and eco friendly approaches.

## Multimodal Transportation

Integrating air cargo with other modes of transport, like rail and maritime, can optimize supply chains and reduce emissions.



## Sustainable Aviation Fuels (SAF) hydrogen & biofuels industries

Developing the SAF, hydrogen and biofuel industries at national and regional levels will help to reduce the fossil fuels dependency and reduce the carbon emisisions.



# Sustainable Practices in Air Cargo

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## Energy Efficiency & Renewable Energies



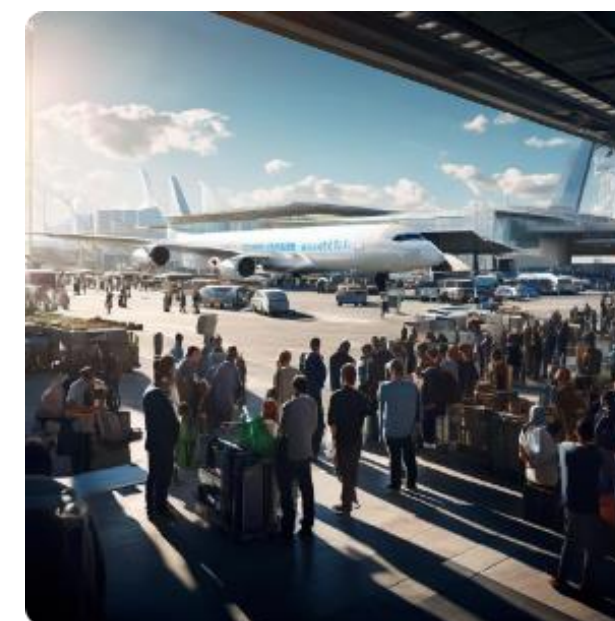
Upgrading equipment, optimizing logistics, and adopting renewable energy sources to reduce energy consumption and emissions.

## Circular Economy & Waste Management



Implementing circular economy and robust recycling and waste reduction programs to minimize the environmental impacts.

## Stakeholders & Communities Engagement



When an inclusive, representative group of stakeholders are engaged, resultant projects satisfy the communities. Address noise pollution and land use issues. Balancing economic growth with community concerns.

## Stop Wildlife Trafficking



The air cargo industry can sign the BHP Declaration and join the USAID Reducing Opportunities for Unlawful Transport of Endangered Species (ROUTES). Implement IATA's Live Animals Regulations (LAR).

## Biodiversity Protection



Conduct environmental impact assessments. Implement wildlife management programs and preserve green spaces around air cargo terminals.

# Innovative Technologies for Eco-Friendly Air Cargo

## Electric & Biofuel Ground Vehicles

Zero-emission electric and biofuel trucks, forklifts, and other ground support equipment for cargo handling.

## Solar-Power & Storage Facilities

On-site solar panels and batteries to generate and store renewable energy for air cargo warehouses and operations.

## Automated Cargo Systems

Robotics and AI-powered technologies to improve efficiency and reduce manual labor.

## Data-Driven Optimization

Advanced analytics and digital tools to optimize logistics, route planning, and resource allocation.

## Others

- Underground and solar power waste compactors
- Battery walls for energy storage as mini power plants
- Drones and AV with AI for cargo, surveillance and security



## Core policy objectives for a sustainable Air Cargo operation



- **Comply with all applicable environmental regulations and obligations**
- **Use energy, water, fuel and other resources efficiently, and minimize emissions and waste**
- **Set objectives and targets for continuous improvement and put in place programs to address your environmental impacts and opportunities**
- **Evaluate and monitor the environmental impacts and performance**

## Conclusions and Future Outlook

### Transformative Potential

Air cargo operations in Latin America have the potential to move toward sustainable infrastructure, significantly reducing environmental impact and driving economic growth.

### Collaborative Vision

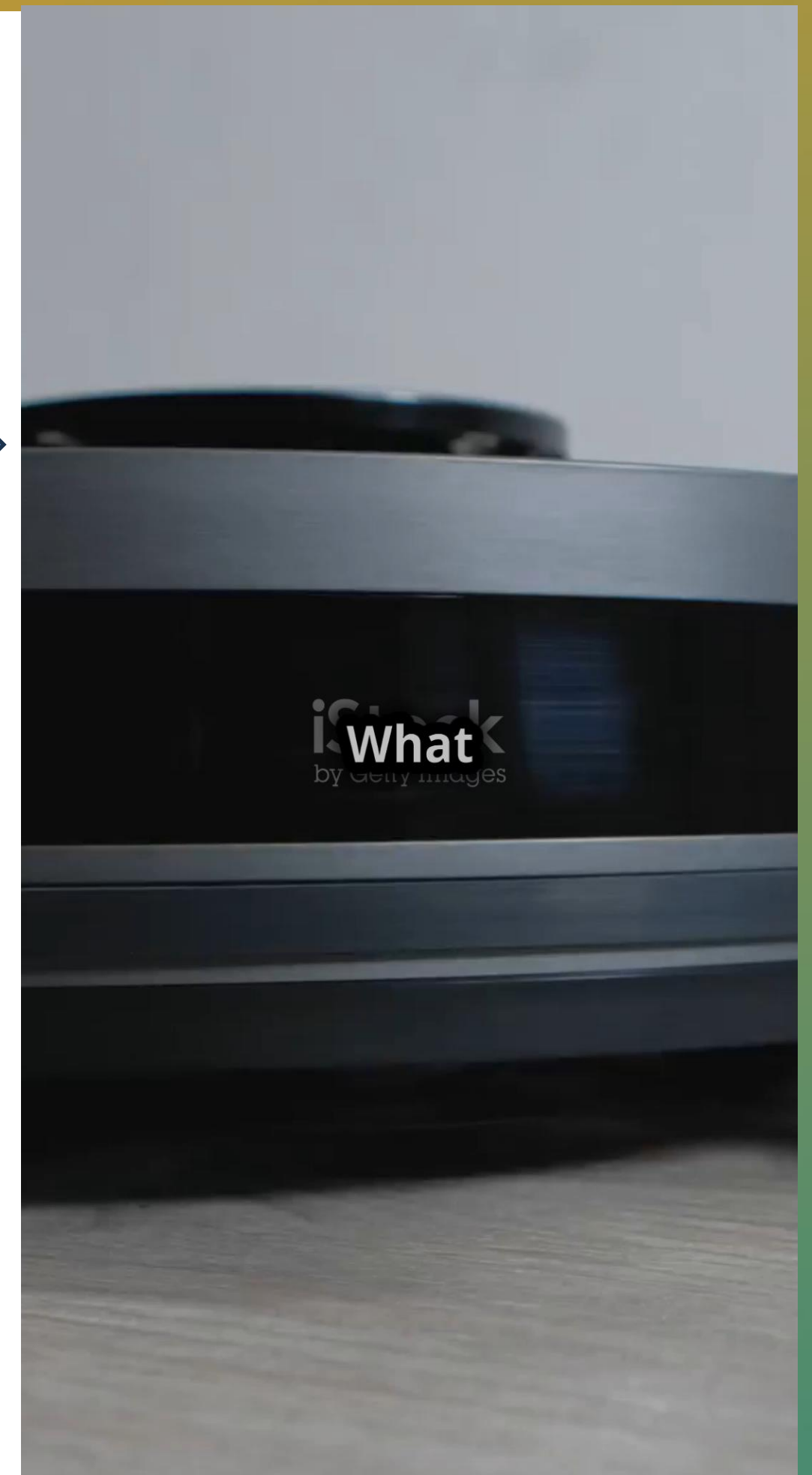
Successful implementation of sustainable practices will require a collaborative effort among all stakeholders.

### Sustainability Mindset

The entire industry is embracing the need for sustainable transformation as the next generation want to work for an industry that is modern, agile, and sustainable.

### Bright Future

With the right policies, technologies, and commitment, the future of air cargo in Latin America can be both environmentally and economically sustainable.





# References & Support Documents

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