

# 2024 ICAO REGIONAL SEMINAR ON ENVIRONMENT

Hosted by



ICAO MID

MID Region

12 to 13, August 2024

Cairo, Egypt



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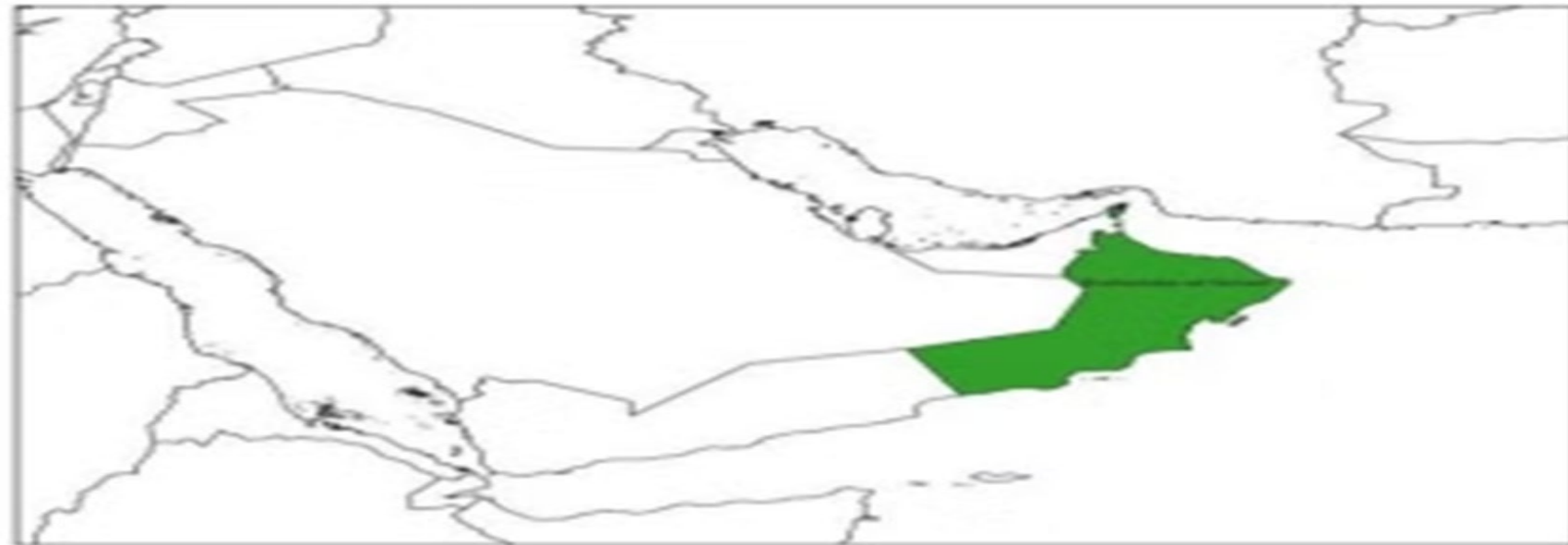
# Oman's Action Plan on Aviation CO2 Emissions

## Oman's Action Plan on Aviation CO2 Emissions

Oman has developed a plan to reduce CO2 emissions from international aviation. The plan outlines the country's commitment to sustainable aviation and its efforts to mitigate climate change.

The plan provides an overview of Oman's aviation industry, assesses national air transport activities, and establishes a baseline for CO2 emissions. It also details the mitigation measures Oman plans to implement to reduce its carbon footprint.

Oman requires international support to achieve its ambitious goals and address this global challenge collaboratively.





# Aviation History In Sultanate Of Oman

- **Beit Al Falaj Airport was the first airport in Oman, (1929) (dirt runway for military use and PDO aircraft).**
- **In the 1960s, Gulf Air began using the airport with its DC3 aircraft.**
- **In the early seventies, Pakistani and British Airways began semi-regular flights for travellers.**
- **Al Seeb International Airport was opened in 1973 and expanded in 1983 & it was changed to Muscat International Airport in 2008.**
- **New Muscat International Airport opened in 2018.**



# Aviation Structure in Sultanate of Oman

Royal Decree No. 33/2012 (26 May 2012) establishing the Civil Aviation Authority

## Article 1:

- A public authority called the "Civil Aviation Authority" shall be established under the Council of Ministers. The Authority enjoys legal personality and financial and administrative independence. It is the authority responsible for various regulatory and legislative aspects of the Civil Aviation Affairs in the Sultanate of Oman. And work on the provision of air navigation services and the National Service of Meteorology.

## Article Four:

- The Authority shall be managed by a Board of Directors chaired by the Minister of Transport and Communications & Information Technology, with the membership of six members representing relevant authorities, to be appointed by a decision of the Council of Ministers.

## Article Five:

- The Authority shall have an Executive President, who shall be appointed by Royal Decree.

# Oman's Air Transport Industry

Oman has an excellent strategic location, within 8 hours flying time from two third's of the world

The Sultanate of Oman became a member of ICAO in 24<sup>th</sup> January 1973

## Muscat International Airport

In 2018, the new Muscat International Airport was opened. Building modern airports with state-of-the-art technology and all the amenities and facilities necessary creates a unique experience for passengers traveling through Omani airports.

Percentage of increase in passengers number between 2022 -2023 is 47%.

## Salalah Airport

The other international airport in Oman is Salalah Airport, which has a capacity of 2 million passengers per year and can be increased to 6 million passengers per year.

Percentage of increase in passengers number between 2022 -2023 is 29%.

## Sohar Airport

Sohar Airport has a capacity of 300,000 passengers per year and can be increased to 500,000 passengers per year.

Percentage of increase in passengers number between 2022 -2023 is 84%.

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## Airlines

The Sultanate of Oman has two main airlines, "Oman Air" and "Salam Air", which fly internationally.

## Aerodromes

Oman CAA Certified 8 Aerodromes in total.

# Environmental Sustainability



## Carbon Reduction

Oman Airports have joined the Airports Council International (ACI) Carbon Accreditation Program since 2017 to drive carbon emission neutralization in the airport community.



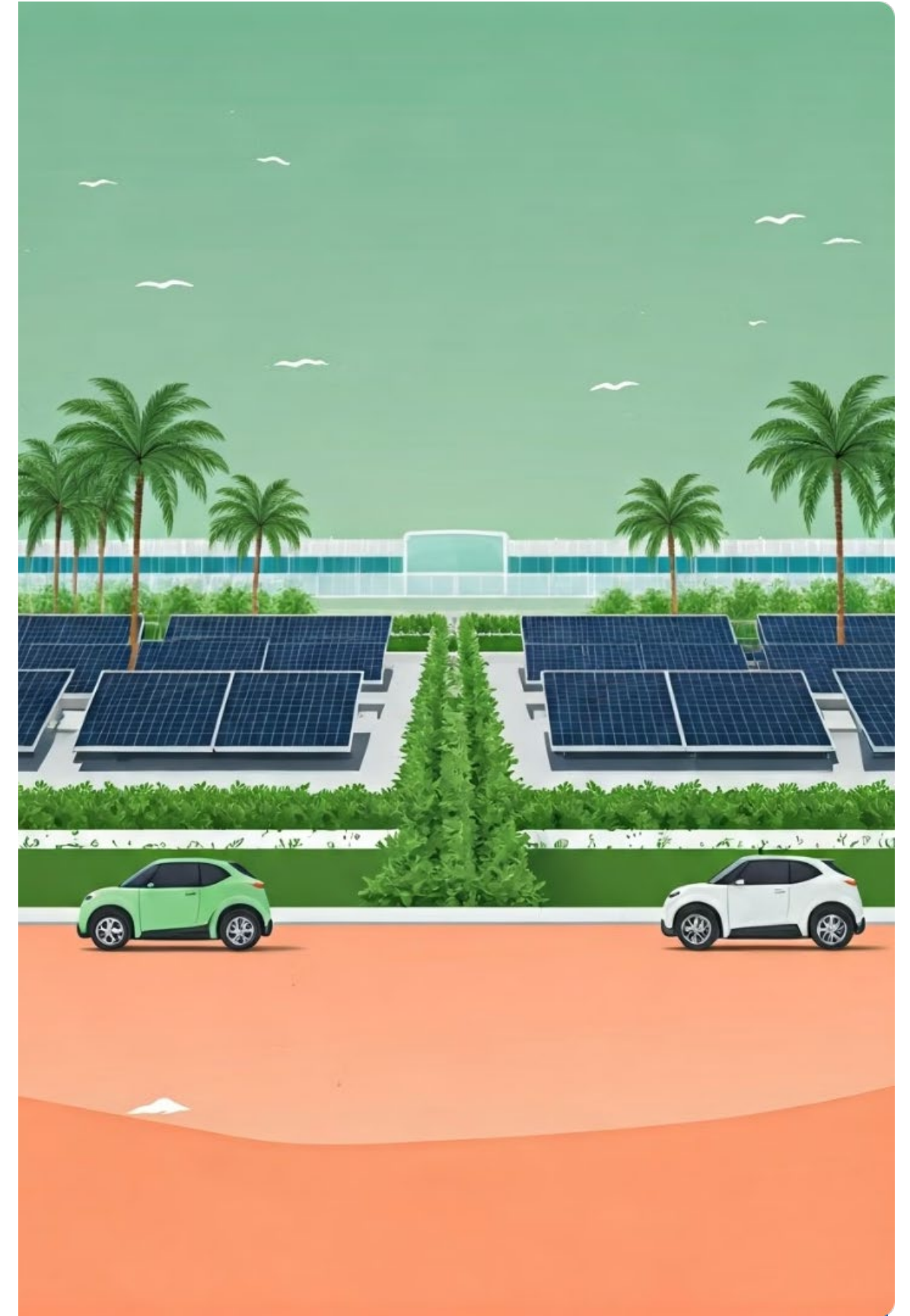
## Non-Hazardous Waste Recovery

Environmental sustainability includes several key success measures adopted from Oman Vision 2040, including a percentage of Carbon Reduction and non-hazardous waste recovery.



## Travel and Tourism Growth

Travel and tourism expenditures have been growing at 8% per annum since 2009.







# Climate Change and Oman's Vision

## 1 Oman's Commitment to Net-Zero Emissions

The Sultanate of Oman announced in 2022 its commitment to achieving net-zero emissions by 2050.

## 2 Oman Vision 2040

Oman Vision 2040 was officially endorsed to guide the nation over the next two decades to an advanced nation's position by focusing on four key pillars: a society of creative individuals, a competitive economy, responsible state agencies, and an environment with sustainable components.

## 3 Sustainable Low-Carbon Transport Strategy

The Sultanate of Oman aims to implement a national strategy establishing structure and action plans with practical policies to ensure a smooth transition to sustainable and decarbonized transport.

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## Overview Of National Air Transport Activities

Travel and tourism expenditures have been growing at 8 % per annum since 2009. More than 590,000 Oman airspace in 2019, and about 75 destinations were from and to Muscat, Salalah, and Suhar regard, passenger traffic increased by 12 % annually between 2013 and 2019, reaching 178,283,87 Muscat, Salalah, Suhar, and Duqm airports. Cargo traffic grew by 11 % annually between 2013 and 23,6414 tons. Flight movement at Oman airports grew by 6.3 % annually between 2013 and 2019,

In addition, there are 32 foreign airlines operating in Oman and operating international flights, excluding "Oman Air" and "Salaam Air". In recent years, there has been a soaring trend in air transport activities within the Sultanate of Oman, which can be associated with an influx of tourism up until 2019. In 2020, Oman experienced a steep decline due to the COVID - 19 pandemic.



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## Preparation of State Action Plan

- Oman actively contributes to ICAO's efforts to reduce CO2 emissions from international aviation. The Plan (SAP) supports the implementation of mitigation measures for the civil aviation sector.

- According to ICAO Resolution A41-21, the SAP should include information on national actions and activities implemented at regional or global levels. The Civil Aviation Environmental Protection Committee oversees the SAP development, comprising members from key aviation and environmental authorities in Oman



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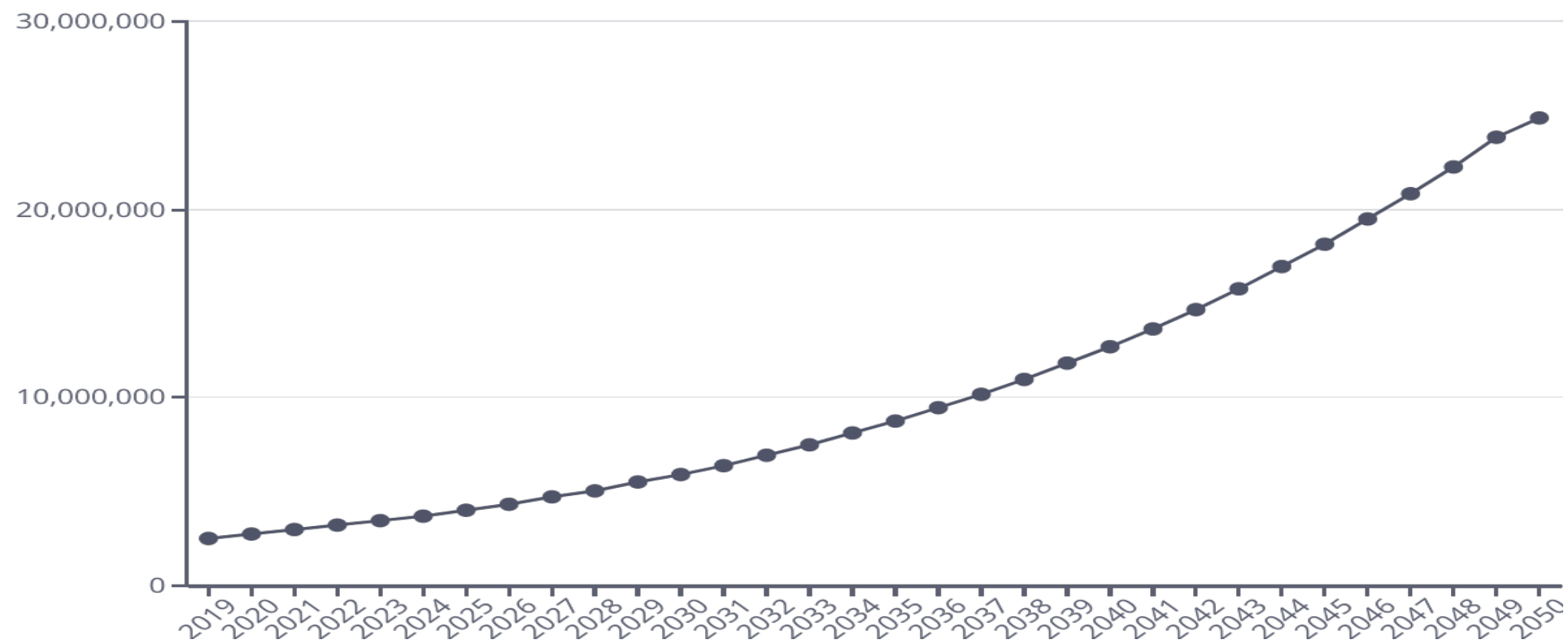
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## Baseline For Co2 Emissions In International Aviation



The baseline scenario (business as usual) for CO2 emissions up to 2050 without taking any mitigation measures was represented in tabular and graphical formats on Table 6 and Figure 10, respectively.

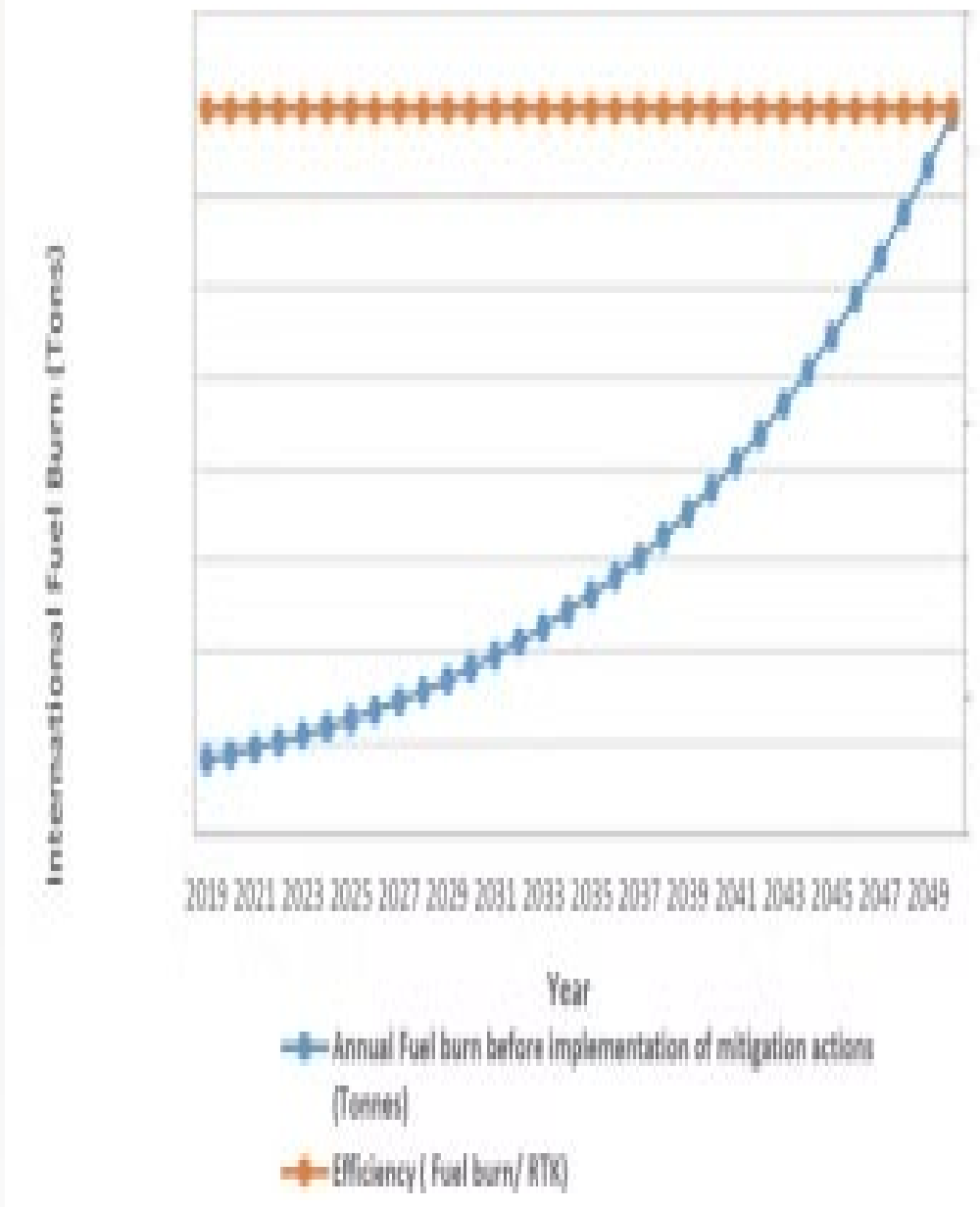


# Establishing the Baseline



Year	Fuel Consumption (Tons)	CO2 Emissions (Tons)
2020	100,000	300,000
2025	150,000	450,000
2030	200,000	600,000
2035	250,000	750,000
2040	300,000	900,000
2045	350,000	1,050,000
2050	400,000	1,200,000

Projected Fuel Efficiency (Fuel burn/ RTK) to the year 2050 without mitigation



# Mitigation Measures and Expected CO2 Emissions Reduction

## Purchase of New Aircraft

Purchase of new aircraft for replacement is expected to save 88.33% of fuel

## Improved Air Traffic Management

Improved Air traffic Management (CDA) is expected to save 2.19% of fuel

## Establishing a sustainable and low-carbon aviation fuel team

It specializes in laying the foundations for the production and use of sustainable fuels (SAF/LCAF) in Oman

## More Efficient Operations

More efficient operations (Single engine taxi, Minimizing/delaying flaps, Minimizing reverse use) are expected to save 8.99% of fuel.

## Economic/Market Based Measures

Economic/Market Based Measures are expected to save 0.48% of fuel.

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## Assistance Needed And Conclusion

### Assistance Needed

Ensuring the long-term sustainability of the aviation market in the Sultanate of Oman necessitates access to cleaner technologies for airlines and airports.

Furthermore, there is a critical need to enhance capacity building programs for aviation stakeholders to effectively implement sustainable measures.

Additionally, the development and enhancement of robust data management systems and tools are essential for the aviation sector in Oman

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## Assistance Needed And Conclusion

This information worksheet represents the Sultanate of Oman's aviation emission reduction action plan for sustainable aviation growth. The report summarizes the development of the aviation environment and aviation infrastructure in the Sultanate of Oman.

Also presents traffic movement data for the past 11 years and related statistics. Furthermore, aggregate methodologies are used to determine the amount of fuel burned. This information on fuel burned by aircraft type is obtained by both air carriers "Oman Air" and "Salam Air".





# Thank You

