



MINISTRY OF TOURISM AND CIVIL AVIATION

**FIJI's**

**STATE' ACTION PLAN**

**ON**

**CO2 EMISSIONS REDUCTION**

**FROM**

**INTERNATIONAL AVIATION**

Version 2.0





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## EXECUTIVE SUMMARY

To meet ICAO Assembly Resolution A38-18, Fiji has put together this State Action Plan detailing its actions to reduce aviation greenhouse gas (GHG) emissions.

This State Action Plan is a living document.

This plan to ICAO elaborates on the activities Fiji is undertaking to reduce CO<sub>2</sub> emissions from international aviation. This plan is intended to demonstrate to ICAO the effectiveness of actions being taken and to enable ICAO to measure Fiji's progress towards meeting the global goals set by Assembly Resolution A38-18.

Fiji submitted its State Action Plan to ICAO in 2015. This State Action Plan is an updated version as per the guidelines given in ICAO Doc 9988.

This Action Plan identifies key measures that are expected to have the greatest environmental impact to contribute to ICAO's long-term aspirational goals of Net Zero aviation emissions by 2050. With the adoption of the 2023 ICAO Global Framework for Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF) and other Aviation Cleaner Energies, Fiji will strive to achieve a collective global aspirational Vision to reduce CO<sub>2</sub> emissions in international aviation by 5% by 2030.

By implementing these measures, the Fiji aviation sector will contribute to the targets set by the Paris Agreement and the United Nations Framework Convention on Climate Change (UNFCCC), which recognise the urgency of taking action to limit global warming to 1.5 degrees Celsius above pre-industrial levels.

As outlined below, a number of key initiatives have already been implemented to reduce jet fuel consumption by our national carrier Fiji Airways, upgrade airport technology and infrastructure, and improve the efficiency of Air Traffic Management.

The intention of this Action Plan is to communicate, both at the national and international level, Fiji's efforts to address GHG emissions from international aviation.

This plan has been divided into five sections:

- a) Section 1.0 — Introduction
- b) Section 2.0 — Overview of Civil Aviation in Fiji
- c) Section 3.0 — Baseline Scenario
- d) Section 4.0 – Mitigation Measures
- e) Section 5.0 – Expected results
- f) Section 6.0 – Assistance Needs





## SECTION 1.0 — INTRODUCTION

### 1.1 Background and Objectives

There are different ways of measuring air transport's impact on an economy. We look at three: the jobs and spending generated by airlines and their supply chain, the flows of trade, tourism and investment resulting from users of all airlines serving the country, and the city pair connections that make these flows possible. All provide a different but illuminating perspective on the importance of air transport.


Air transport market in Fiji is forecast under the “current trends” scenario to grow by 75% in the next 20 years. This would result in an additional 1.1 million passenger departures by 2038. If met, this increased demand would support approximately US \$3.9 billion of GDP and around 116,400 jobs.

The Ministry of Tourism and Civil Aviation (MTCA) is responsible for economic regulation of air transport, formulation and review of aviation policies, negotiation and review of bilateral air services agreements with other sovereign states, administration of international aviation through licensing of international air services, administration of aviation security and air transport facilitation. In addition, the department also monitors the compliance of civil aviation agencies and air operators of various international air conventions and agreements, pursuant to the Articles and Annexes of the International Civil Aviation Organisation (ICAO) Conventions 1944. The MTCA also oversees Fiji's compliance with its obligations as a member of the ICAO General Assembly and the development of local laws and regulations pertaining to civil aviation.

Fijian Government established the Civil Aviation Authority of Fiji with statutory obligations under the Civil Aviation Authority Act 1979, to provide regulatory oversight of the civil aviation industry and support an integrated, safe, responsive, and sustainable air transport system.

Fiji's responsibility, under the Chicago Convention, for the provision of air navigation services (ANS) to aircraft operating within the Nadi Flight Information Region (FIR) is provided by Fiji Airports (FA). The Nadi FIR comprises an area of 6 million square kilometers and lies between longitudes 163°East and 170°West and latitudes 0330°North and 30°South, this includes the sovereign air space above Fiji, Tuvalu, New Caledonia, Kiribati, Vanuatu and Wallis & Futuna.

Fiji lies in the heart of the southwest Pacific Ocean, comprising approximately 330 islands, having a total land area of approximately 18,300 sq km. The largest island is Viti Levu (10 429 sq km), which covers 57% of the total area. Fiji's two International Airports - Nadi International Airport and Nausori International Airport are located in Viti Levu. The Nadi



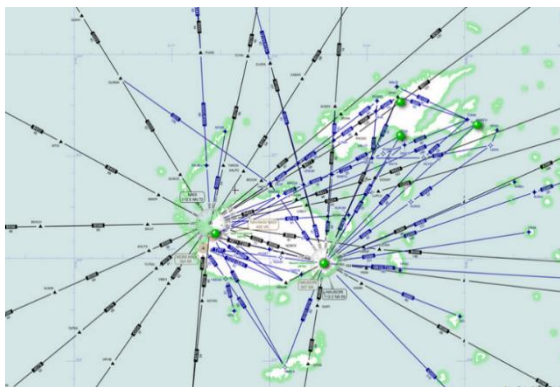
International Airport serves over 10 airlines and connects Fiji to more than 20 international destinations.

The tourism sector employs approximately 120,000 Fijians and contributes above 40% of Fiji's Gross Domestic Product (GDP). Growth in the industry is becoming more broad-based with increased benefits trickling down to the grassroots level, expanding eco-tourism and tourism related activities.

As an island nation with an open economy, Fiji is heavily dependent on transportation services. The transport sector accounts for around 12 percent of the national GDP. Fiji's air transport industry is a dynamic industry which is continuing to grow at a rapid rate transporting over a million passengers, approximately 90% of which are tourists and over 33 million tonnes of freight annually.

Sustainability of the aviation transport industry is vital to our economy. Fiji is therefore committed to addressing the climate change impacts of aviation and is already achieving reductions in greenhouse gas (GHG) emissions from improvements that are being made and will continue on this path to ensure that it meets or exceeds the goals it has set.

The two major players in Fiji's efforts to reduce its aviation GHG emissions are Fiji Airports (air navigation service provider and international aerodrome operator) and Fiji Airways (national airline).



Fiji Airports is a fully Government-owned Commercial Entity established under the Public Enterprise Act 1996 and the Civil Aviation Reform Act 1999 to own and operate the Nadi International Airport including the operation of the Nausori International Airport and, 13 other domestic airports on behalf of the Government. Fiji Airports also provides air navigation services in the Nadi flight information region (FIR).

Fiji Airways is Fiji's flag carrier and boasts a strong position within the region, and ranked as the Best Airline in 2024 amongst the region's top carriers, including Australia and New Zealand. The Fijian government owns majority shares in the airline. The airline operates a modern fleet of aircraft.





## 1.2 Contact Information

The contact information of the focal person for Fiji’s action plan is provided below.

- Name of the Authority: Ministry of Tourism and Civil Aviation
- Point of Contact: Ms. Alumita Lagicere
- Street Address: Level 4, Civic Tower Building
- Province: Suva
- Country: Fiji
- Telephone Number: +679 3315577
- E-mail address: [alagicere@mtca.gov.fj](mailto:alagicere@mtca.gov.fj)

## SECTION 2.0 — OVERVIEW OF CIVIL AVIATION IN FIJI

### 2.1.1 Air Transport Operators

Air Transport Operators	ICAO	IATA	Type of Operations (scheduled/non-scheduled, passengers/cargo, domestic/international)
Fiji Airways	FJI	FJ	Scheduled and non-scheduled passenger and cargo services

### 2.1.2 Airport Operators

Airport Operators	Airport Names and Cities	Domestic/International
Fiji Airports	Nadi International Airport	International
Fiji Airports	Nausori International Airport	International

### 2.1.3 Air Navigation Service Providers

Air Navigation Service Providers	Type of Service
Fiji Airports	Air Traffic Management (ATM); Communications, Navigation, & Surveillance (CNS); Search and Rescue (SAR); Aeronautical Information Services (AIS)
Fiji Meteorological Services	Aeronautical Meteorological Services (MET)

## SECTION 3.0 — BASELINE SCENARIO

Most aviation-related measures affect both domestic and international operations. To every extent possible, Fiji has distinguished between domestic and international aviation for the collection of fuel consumption and traffic data. Emissions from airport and/or ground support equipment operations are considered as domestic emissions and are beyond the scope of **Resolution A41-22**.



For the purpose of this plan, only International emissions have been taken into consideration. The definition of International emission (in italics below) as stipulated in the ICAO Doc 9988, Guidance on the Development of States' Action Plans on CO<sub>2</sub> Emissions Reduction Activities, has been applied.

A flight stage is defined as the operation of an aircraft from take-off to landing and is classified as either international or domestic based on the following:

- a) *International: An international flight is defined as the operation of an aircraft from take-off at an aerodrome of a State or its territories, and landing at an aerodrome of another State or its territories.*
- b) *Domestic: A domestic flight is defined as the operation of an aircraft from take-off at an aerodrome of a State or its territories, and landing at an aerodrome of the same State or its territories.*

### 3.1 Baseline

Method C as stipulated in Doc 9988 was adopted for the purpose of this plan, where a single base year value was used and the future fuel efficiency assumed to be constant.

The year used as Fiji's "Baseline year" was 2022.

Fiji's estimated fuel consumption and CO<sub>2</sub> emissions for international aviation for the year 2022 was calculated using the ICAO calculation tools available on the APER website.

Methodology used:-

1. Obtained historical data.
  - a. The actual fuel consumption data provided to the State by Fiji Airways was audited by an external auditor, Verifavia Singapore, and this data was utilised to calculate the baseline. The fuel consumption for 2022 is **143,984 tonnes**.
2. The Revenue Tonne Kilometres (RTK) data for year 2022 was provided by Fiji Airways which is **646,308,916 tonnes**.
3. Based on this data the fuel efficiency calculated using the environmental based tool (EBT) to be **0.223 fuel burn/RTK**.

YEAR	INTERNATIONAL RTK ('000)	INTERNATIONAL FUEL BURN (Tonnes)	EFFICIENCY (Int.Fuel burn/Intl. RTK)
2022	646309.00	143984.00	0.223

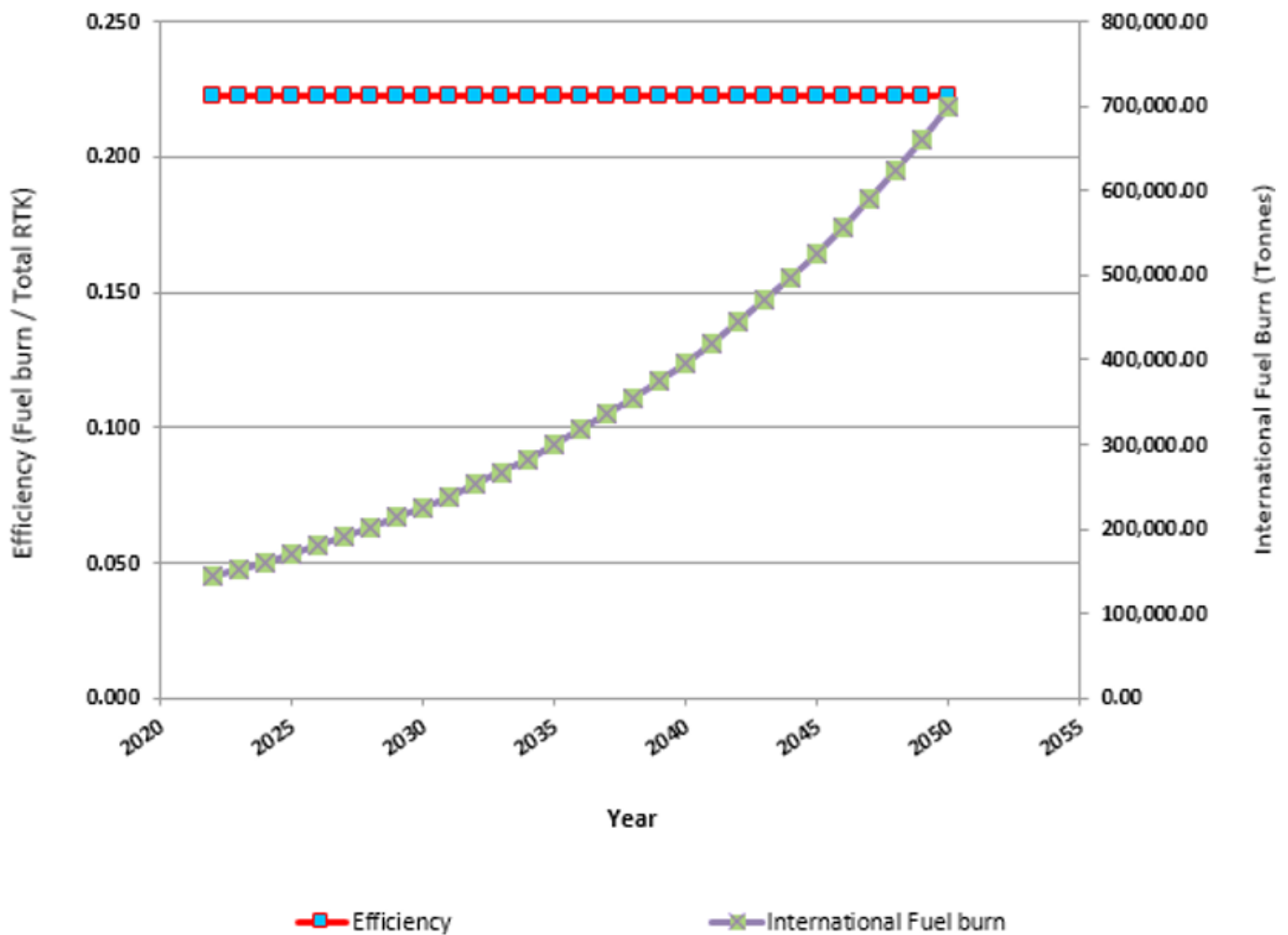


## BASELINE TO NET-ZERO 2050

### BASELINE

Year	International RTK (‘000)	International Fuel burn (Tonnes)	Efficiency (Fuel burn / RTK)
2022	646,309.00	143,984.00	0.223
2023	683,794.92	152,335.07	0.223
2024	723,455.03	161,170.51	0.223
2025	765,415.42	170,518.40	0.223
2026	809,809.51	180,408.46	0.223
2027	856,778.47	190,872.15	0.223
2028	906,471.62	201,942.74	0.223
2029	959,046.97	213,655.42	0.223
2030	1,014,671.69	226,047.43	0.223
2031	1,073,522.65	239,158.18	0.223
2032	1,135,786.97	253,029.36	0.223
2033	1,201,662.61	267,705.06	0.223
2034	1,271,359.04	283,231.95	0.223
2035	1,345,097.87	299,659.41	0.223
2036	1,423,113.54	317,039.65	0.223
2037	1,505,654.13	335,427.95	0.223
2038	1,592,982.07	354,882.77	0.223
2039	1,685,375.03	375,465.97	0.223
2040	1,783,126.78	397,243.00	0.223
2041	1,886,548.13	420,283.09	0.223
2042	1,995,967.92	444,659.51	0.223
2043	2,111,734.06	470,449.77	0.223
2044	2,234,214.64	497,735.85	0.223
2045	2,363,799.09	526,604.53	0.223
2046	2,500,899.43	557,147.59	0.223
2047	2,645,951.60	589,462.15	0.223
2048	2,799,416.79	623,650.96	0.223
2049	2,961,782.97	659,822.71	0.223
2050	3,133,566.38	698,092.43	0.223





## SECTION 4.0 — MITIGATION MEASURES

Assembly **Resolution A38-18** recommends that for States who choose to prepare their action plans; “the action plans should include information on the basket of measures considered by States, reflecting their respective national capacities and circumstances, and information on any specific assistance needs”.

The different categories constituting the basket of measures which were identified and endorsed by the High-Level Meeting on International Aviation and Climate Change is summarised in the table below along with a brief on Fiji’s actions in these areas:-



Basket of measures	Fiji's proposed actions
a) Aircraft-related technology development.	<p>The following measures are expected to deliver a 2% reduction in fuel burn each year, compared to baseline values. In 2023, this will equate to an annual fuel saving of approximately 2880 tonnes, equating to 9100 tonnes of CO<sub>2</sub>.</p> <p><b>1. Modernisation of Fiji Airways fleet</b></p> <p>Fiji Airways' fleet modernisation program commenced in 2013 with the replacement of Boeing 767 and 747 aircraft with brand new Airbus A330 aircraft, and the replacement of old ATR turboprops with new.</p> <p>This continued in 2017-18 with the replacement of four (4) vintage DHC-6 Twin Otter aircraft with four (4) brand new Viking DHC-6-400 Twin Otter aircraft, and the replacement of ageing Boeing 737 NG aircraft with brand new, fuel-efficient Boeing 737 MAX aircraft. The Boeing 737 MAX delivers enhanced efficiency, reducing fuel use and carbon emission by approximately 14%, while also producing a smaller noise footprint, compared to previous generation Boeing 737 aircraft.</p> <p>More recently, in 2019, Fiji Airways took delivery of two (2) of its flagship state of the art, fuel-efficient, Airbus A350 aircraft, and added a further two (2) A350s to the fleet in 2023.</p> <p>The A350's technology and state of the art aerodynamic design results in 25% less fuel burn and carbon emission per seat compared to older generation aircraft.</p> <p><b>2. Introduction of "Sky Breathe" Fuel Monitoring Software</b></p> <p>This software provides real time data based on actual flight performance for monitoring and analysis purposes. The software identifies relevant fuel saving opportunities and provides a series of recommendations which has helped Fiji Airways reduce fuel consumption since its implementation in 2019.</p> <p>The Sky Breathe - My Fuel Coach app allows pilots to access accurate fuel consumption data, track their individual fuel-management performance on a flight-by-flight basis, and learn how they can improve.</p> <p>The software recommends and tracks operational best practices for continuous fuel savings and carbon reduction, such as:</p> <ul style="list-style-type: none"><li>● Single engine taxi</li><li>● Continuous descent approach</li><li>● Reduced altitude acceleration</li><li>● Idle reverse thrust</li><li>● Contingency fuel monitoring and reduction</li><li>● Optimized tankering</li><li>● Best alternate airport</li><li>● Discretionary fuel monitoring</li></ul>



Basket of measures	Fiji's proposed actions
	<p><b>3. Acquisition of electric Ground Power Units (GPU)</b></p> <p>Fiji Airways possess two electric GPUs and is in the process of purchasing two additional electric GPUs. Electric GPUs replace the need to use the aircraft Auxiliary Power Unit (APU) when aircraft is on the ground.</p> <p><b>4. Onboard portable water uplift reduction</b></p> <p>The volume of water carried in-flight has been reduced for a lower fuel burn and reduced carbon emission. The analysis from the Sky Breathe software and historical data has indicated a significant reduction of the volume of portable water carried in-flight from 25% (medium haul flights) to 50% (long haul flights).</p> <p><b>5. Digitisation of flight manuals and magazines</b></p> <p>Fiji Airways has introduced digital versions of manuals and in-flight magazines which contributes to lower fuel burn and reduced carbon emissions.</p>
b) Alternative fuels	<p>The aviation industry has adopted the goal of reaching net-zero carbon emissions by 2050. Fiji Airways is committed to achieving this goal and, in furtherance thereof, has established a fuel management program to lower jet fuel usage and reduce carbon emissions. These efforts are reinforced through review and implementation of policy changes, acquisition of new generation fuel-efficient aircraft, and a fuel monitoring system.</p> <p>Whilst such efforts to implement technical and operational improvements have a role to play, a transition from fossil fuels to sustainable aviation fuel (SAF) is widely regarded as the most critical element in the aviation industry's strategy to decarbonize and achieve net-zero carbon emissions by 2050.</p> <p>In 2023, Fiji Airways contracted a total of 100,000 USG blended sustainable aviation fuel at Changi Airport for flights from Singapore to Nadi. Fiji Airways plans to grow this annually towards its target of 10% SAF by 2030.</p> <p>On 26 August 2023, Fiji Airways took delivery of its fourth Airbus A350 aircraft, and the ferry flight from Singapore to Nadi was powered by a 30-40% sustainable aviation fuel (SAF) blend, with a carbon saving of around 46,768 kg (47 tonnes).</p> <p>Fiji Airways is determined to take an innovative approach and is exploring the potential for the production of SAF in Fiji.</p>



Basket of measures	Fiji's proposed actions
<p>c) Improved air traffic management and related infrastructure use.</p>	<p>The Aviation System Block Upgrade (ASBU) methodology is being used to guide Fiji's improvement of its air navigation capacities and will enable in addition to harmonization with other States in the region, increased capacity, and improved environmental efficiency.</p> <p>Several ASBU modules were identified that would bring immediate and significant emissions reduction and these are outlined below in succeeding rows.</p> <p>Improved operations through optimized ATS routing (B1-FRTO) by 2027.</p> <p>Extension of off-gate parking to bring about a reduction in the congestion at the apron; eliminating delays in taxiing after engine start and on arrival to allocated parking gate. This is expected to be completed as part of the Nadi International Apron upgrade in 2024.</p>
	<p>Performance Based Navigation (PBN) initiatives: Implementation Schedule for En-Route, Terminal and Approach Procedures:</p> <ul style="list-style-type: none"> <li>● Radar Departures under Surveillance Control will be published by 2025.</li> <li>● <b>Review of current SIDs to ensure efficiency and separation with proposed STARS</b></li> </ul> <p><b>NADI AIRPORT</b></p> <ol style="list-style-type: none"> <li>1) Runway 02 - RNP APCH with Baro VNAV for South Arrival by 2025</li> <li>2) Runway 09 - RNP APCH with Baro VNAV by 2025</li> <li>3) Runway 27 - Explore RNP APCH with Baro VNAV including option for offset</li> <li>4) Runway 20 - RNP-AR for north arrival to be explored, beyond 2023</li> <li>5) STAR 02 RNAV 1 by 2026</li> <li>6) SID 20 RNP1 by 2025</li> <li>7) SID 27 RNAV 1 by 2025</li> <li>8) SID 02 - RNAV 1 by 2025</li> <li>9) SID 09 - RNAV 1 by 2025</li> </ol> <p><b>NAUSORI AIRPORT</b></p> <ol style="list-style-type: none"> <li>1) Runway 28 - RNP APCH with BARO V-NAV by 2025</li> <li>2) Runway 10 - RNP APCH with BARO V-NAV by 2025</li> <li>3) STAR 10-RNAV 1 by 2028</li> <li>4) SID 10 - RNAV 1 by 2028</li> <li>5) SID 28 - RNAV 1 by 2028</li> </ol> <p>Introduction of Surveillance Control Services (ADS-B) within Domestic Airspace to allow flexibility and efficiency in aircraft departure/arrival profiles through improvement to Continuous Climb Operations (B0-CCO) and Continuous Descent Operations (B1-CDO)</p>



Basket of measures	Fiji's proposed actions
d) More efficient operations.	<p>Implementation of improvements:-</p> <ul style="list-style-type: none"> <li>● Pre-flight procedures such as implementation by the national airline of a new flight planning system which will ensure the aircraft is flight planned at the most optimum level and route</li> <li>● Start-up and taxiing procedures</li> <li>● In-flight procedures; attainment of aircraft operational approvals to enable aircraft to take advantage of PBN operations during the enroute phase of flight; RNAV 10, RNP 4, User Preferred Route (UPR) and Dynamic Airborne Routing Procedures (DARP).</li> <li>● Introduction of Surveillance Control Services within Domestic Airspace that results in reduced track miles for departing and arriving flights.</li> </ul>
e) Airport Improvements	<ul style="list-style-type: none"> <li>● The replacement of legacy movement area lights with LED lights at Nadi Airport by 2025.</li> <li>● Installation of 3.5MWH solar farm at Nadi Airport by 2025.</li> <li>● Replacement of all AFFF Foam with environmentally friendly Fluro-free Foam (FFF) by 2025.</li> <li>● Nausori Airport runway length extended to enable use as a technical alternate for Fiji Airways' aircraft in the event of bad weather, as opposed to holding or diverting to an overseas port.</li> <li>● Implementation of full waste management recycling system from 2025.</li> </ul>
f) Economic/ market- based measures	<p><b>Participating in CORSIA in 2024</b> Explore purchase of carbon credits</p>
g) Regulatory measures/ other	<ul style="list-style-type: none"> <li>● Mandating slot management for improved air traffic flow and Airport Collaborative Decision Made (A-CDM).</li> <li>● Hosting of ICAO Workshop on measures identified in this baskets.</li> <li>● Coordinating in-house workshops for information sharing and capacity building.</li> <li>● Review of State Action Plan</li> </ul>
h) Domestic measures to mitigate CO2 emissions	<p><b>Mangrove Regeneration and Conservation</b></p> <p>Fiji Airways has committed to plant one tree for every take-off. Over the past few years, Fiji Airways has planted more than 63,000 mangroves in coastal areas. Mangroves sequester 4 times the amount of carbon from the atmosphere than regular trees, and store the carbon in the ocean floor through the process of photosynthesis. In addition to removing carbon from the atmosphere, mangroves also help to mitigate the impacts of sea level rise, coastal degradation/erosion and natural disasters. They are also a sanctuary for migratory birds, fish and other marine organisms.</p> <p>In addition to the one tree for every take-off program, Fiji Airways is also exploring</p>



Basket of measures	Fiji's proposed actions
	<p>the feasibility of a larger-scale mangrove conservation and regeneration project, capable of generating and selling internationally verified carbon credits which can be used to offset emissions generated by Fiji Airways' operations.</p> <p>Fiji Airport (FA) is also engaged in mangrove planting in the coastal areas around Nadi.</p>
	<p><b>Waste Reduction and Recycling</b></p> <p>In 2023, Fiji Airways implemented an office waste recycling program, where all office waste is segregated into 4 waste streams, 3 of which are recycled. So far, this initiative has diverted 25% of office waste away from landfill, and the percentage continues to grow.</p> <p>Fiji Airways currently working to replace all single-use plastics used on-board aircraft with sustainable alternatives. This includes things like plastic wrappings, cutlery, cups, etc. In addition, Fiji Airways is currently working with the Biosecurity Authority of Fiji to enable all plastic bottles used on-board to be stored on the aircraft, returned to Fiji, and recycled, as opposed to being incinerated.</p> <p>Fiji Airport monitors its carbon emissions based on the Airport Council International Framework. It currently holds Level 3 Accreditation and is targeting Level 4 Accreditation by 2025.</p> <p>Fiji Airport plans to implement a full waste management recycling system from 2025.</p>

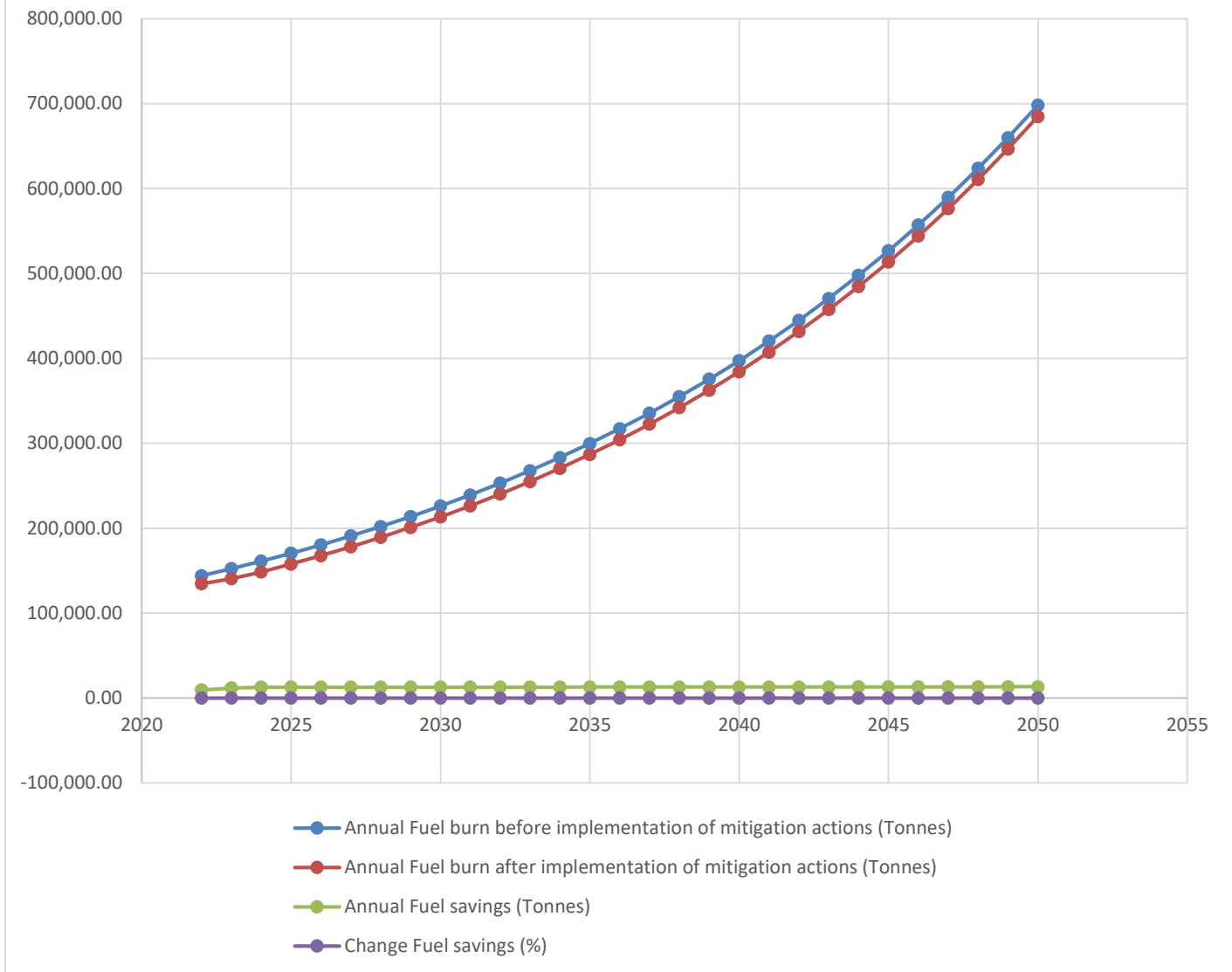


## SECTION 5.0 – EXPECTED RESULTS

In the table below is the projected fuel consumption and CO2 emissions after implementation of the mitigation actions pertaining to aircraft technology with purchase of two additional A-350 aircrafts, Sustainable Aviation Fuel (SAF), and the inclusion of enablers for ATM - Air Traffic Flow Management (ATFM) and Airport Collaboration Decision Making (A-CDM). Other mitigating measures identified in section 3 have yet to be quantified and will be carried out once more data is at hand.

### EXPECTED RESULTS : FUEL SAVINGS

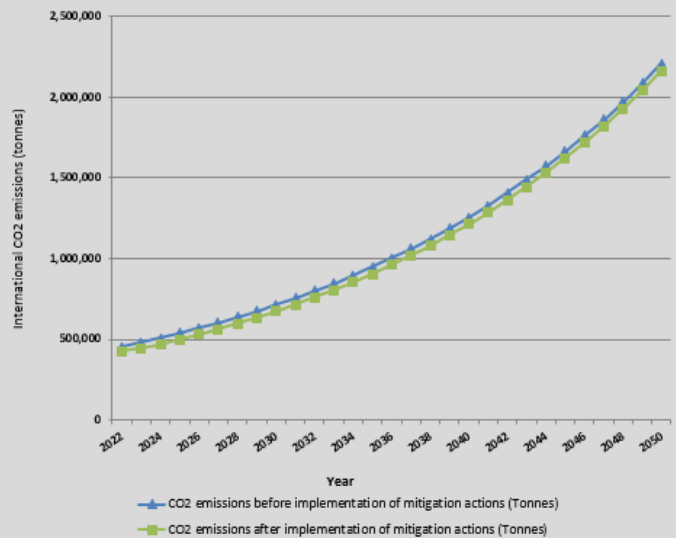
Year	Annual Fuel burn <u>before</u> implementation of mitigation actions (Tonnes)	Annual Fuel burn <u>after</u> implementation of mitigation actions (Tonnes)	Annual Fuel savings (Tonnes)	Change Fuel savings (%)
2022	143,984.00	134,543.41	9,440.59	-6.56
2023	152,335.07	140,489.95	11,845.13	-7.78
2024	161,170.51	148,417.43	12,753.08	-7.91
2025	170,518.40	157,756.90	12,761.49	-7.48
2026	180,408.46	167,638.07	12,770.39	-7.08
2027	190,872.15	178,092.34	12,779.81	-6.70
2028	201,942.74	189,152.97	12,789.77	-6.33
2029	213,655.42	200,855.10	12,800.31	-5.99
2030	226,047.43	213,235.96	12,811.47	-5.67
2031	239,158.18	226,334.92	12,823.27	-5.36
2032	253,029.36	240,193.61	12,835.75	-5.07
2033	267,705.06	254,856.10	12,848.96	-4.80
2034	283,231.95	270,369.02	12,862.93	-4.54
2035	299,659.41	286,781.69	12,877.72	-4.30
2036	317,039.65	304,146.29	12,893.36	-4.07
2037	335,427.95	322,518.04	12,909.91	-3.85
2038	354,882.77	341,955.35	12,927.42	-3.64
2039	375,465.97	362,520.03	12,945.94	-3.45
2040	397,243.00	384,277.46	12,965.54	-3.26
2041	420,283.09	407,296.82	12,986.28	-3.09
2042	444,659.51	431,651.30	13,008.22	-2.93
2043	470,449.77	457,418.34	13,031.43	-2.77
2044	497,735.85	484,679.87	13,055.99	-2.62
2045	526,604.53	513,522.56	13,081.97	-2.48
2046	557,147.59	544,038.14	13,109.46	-2.35
2047	589,462.15	576,323.61	13,138.54	-2.23
2048	623,650.96	610,481.65	13,169.31	-2.11
2049	659,822.71	646,620.85	13,201.86	-2.00
2050	698,092.43	684,856.13	13,236.31	-1.90





EXPECTED RESULTS : CO<sub>2</sub> SAVINGS

Year	Annual CO <sub>2</sub> emissions before implementation of mitigation actions (Tonnes)	Annual CO <sub>2</sub> emissions after implementation of mitigation actions (Tonnes)	Annual CO <sub>2</sub> savings (Tonnes)	Change CO <sub>2</sub> savings (%)
2022	454,989.44	425,157.19	29,832.25	-6.56
2023	481,378.83	443,668.23	37,710.60	-7.83
2024	509,298.80	468,719.07	40,579.72	-7.97
2025	538,838.13	498,231.82	40,606.31	-7.54
2026	570,090.74	529,456.30	40,634.44	-7.13
2027	603,156.00	562,491.81	40,664.20	-6.74
2028	638,139.05	597,443.37	40,695.68	-6.38
2029	675,151.12	634,422.13	40,728.99	-6.03
2030	714,309.88	673,545.65	40,764.23	-5.71
2031	755,739.86	714,938.33	40,801.52	-5.40
2032	799,572.77	758,731.80	40,840.97	-5.11
2033	845,947.99	805,065.28	40,882.71	-4.83
2034	895,012.97	854,086.10	40,926.87	-4.57
2035	946,923.72	905,950.14	40,973.59	-4.33
2036	1,001,845.30	960,822.28	41,023.02	-4.09
2037	1,059,952.33	1,018,877.01	41,075.31	-3.88
2038	1,121,429.56	1,080,298.92	41,130.64	-3.67
2039	1,186,472.48	1,145,283.30	41,189.18	-3.47
2040	1,255,287.88	1,214,036.77	41,251.11	-3.29
2041	1,328,094.58	1,286,777.94	41,316.64	-3.11
2042	1,405,124.06	1,363,738.10	41,385.97	-2.95
2043	1,486,621.26	1,445,161.94	41,459.31	-2.79
2044	1,572,845.29	1,531,308.37	41,536.92	-2.64
2045	1,664,070.32	1,622,451.30	41,619.02	-2.50
2046	1,760,586.40	1,718,880.51	41,705.88	-2.37
2047	1,862,700.41	1,820,902.62	41,797.79	-2.24
2048	1,970,737.03	1,928,842.01	41,895.02	-2.13
2049	2,085,039.78	2,043,041.89	41,997.89	-2.01
2050	2,205,972.09	2,163,865.36	42,106.73	-1.91



## SECTION 6.0 – ASSISTANCE NEEDS

Fiji would require assistance in:-

- ⊖ Training and capacity building by way of workshops, hands on training and guidance to enable improvement of the State Action Plan, refinement and implementation of measures identified and further enhancement of the knowledge of all stakeholders.
- Research and Development.
- Financial incentives through government and funding agencies such as the Climate Finance.
- Support for in-house/ or in-country technical expertise.



## APPENDIX - ABBREVIATION

The table below describes the various abbreviations used throughout this document.

### ***Abbreviation***    ***Meaning***

<i>A-CDM</i>	Airport Collaborative Decision Made
<i>AFFF</i>	Aqueous Film Forming Foam
<i>AIS</i>	Aeronautical Information Services
<i>ANS</i>	Air navigation services
<i>APER</i>	Action Plans for Emissions Reduction
<i>APU</i>	Auxiliary Power Unit
<i>ASBU</i>	Aviation System Block Upgrade
<i>ATM</i>	Air Traffic Management
<i>ATS</i>	Air Terminal Services
<i>CNS</i>	Communications, Navigation, & Surveillance
<i>CO<sub>2</sub></i>	Carbon dioxide
<i>EBT</i>	Environmental Based Tool
<i>FA</i>	Fiji Airports
<i>FFF</i>	Fluro-free Foam
<i>FIR</i>	Flight Information Region
<i>FJ</i>	Fiji
<i>GDP</i>	Gross Domestic Product
<i>GHG</i>	Greenhouse Gas
<i>GPU</i>	Ground Power Units
<i>ICAO</i>	International Civil Aviation Organisation
<i>MET</i>	Aeronautical Meteorological Services
<i>PBN</i>	Performance Based Navigation
<i>RNAV</i>	Area navigation
<i>RNP</i>	required navigation performance
<i>RTK</i>	Revenue Tonne Kilometres
<i>SAF</i>	Sustainable Aviation Fuel
<i>SAP</i>	State Action Plan
<i>SAR</i>	Search and Rescue
<i>SID</i>	Standard Instrument Departure
<i>STAR</i>	Standard Arrival Routes
<i>UNFCCC</i>	United Nations Framework Convention on Climate Change
<i>UPR</i>	User Preferred Routes