TURKISH AIRLINES | Tomorrow On-Board

2024

TSRS COMPLIANT SUSTAINABILITY REPORT

(Convenience translation of the TSRS report originally issued in Turkish)

Contents

Introduction & About the Report

Message from the Chairman of the Board

Prof.Dr. Ahmet BOLAT
Chair of the Board of Directors and the Executive Committee

Dear Stakeholders,

As a global brand in the aviation industry, Turkish Airlines is steadfastly advancing toward its goal of becoming one of the sustainable airlines of the future by carrying its global success in aviation into the field of sustainability as well. As of December 31, 2024, Turkish Airlines contains 14 affiliates, a workforce of 63,455 people, and 9 joint ventures, totaling over 95,000 employees.

According to our 2024 consolidated financial report, which has been prepared in accordance with the Turkish Financial Reporting Standards (TFRS) and independently audited, we achieved a remarkable record, with revenue approaching USD23 billion (TRY745 billion) and total assets reaching USD40 billion (TRY1,400 billion).

Throughout the year, we made significant contributions to the national economy with a net profit of USD3.4 billion (TRY113 billion), USD18 billion (TRY590 billion) in service exports, and a net foreign exchange inflow of USD9 billion (TRY295 billion).

As Turkish Airlines, we have taken a new step in sustainability reporting within the sector by embracing the responsibility and pride of implementing TSRS, issued by the Public Oversight Authority (KGK) and based on the standards of the International Sustainability Standards Board (ISSB), established under the International Financial Reporting Standards Foundation (IFRS). While responding to the growing global expectations for transparency and accountability in the field of sustainability, we are positioning climate and sustainability-related risks among our strategic priorities. This approach goes beyond regulatory compliance; it is aimed at strengthening our resilience against risks, reinforcing investor confidence, and maintaining our strong position in the global value chain. In this report, unlike other sustainability standards, we address Climate-related risks and opportunities from a holistic perspective, focusing on their impacts on our Company's financial position, financial performance, and cash flow. Through this report, we disclose the financial implications of sustainability, including the effects of risks and opportunities on our financial statements, and inform our investors on these matters. In doing so, we support the decision-making processes of our current and potential investors, as well as other stakeholders.

On our path toward sustainable growth, we view the management of sustainability and Climate-related risks and opportunities as a key strategic area. We approach the impacts of Climate-related risks and opportunities on our Company's operational and financial structure with a multi-dimensional perspective. In this context, we analyze transition and physical risks through short-, medium-, and long-term scenarios, and develop strategies accordingly. Analyses based on climate scenarios help reduce the uncertainty of risks, contributing to more robust strategic decision-making processes. At the same time, these analyses also guide us in steering our investments, planning our fleet, and shaping our sustainability roadmap.

As we shape our forward-looking strategies through short-, medium-, and long-term perspectives, we analyze transition and physical risks and comprehensively assess their impacts on our business model. In this context, we use analyses based on climate scenarios to reduce the uncertainty of risks and establish a sound foundation for our strategic decision-making processes. These analyses enable us to assess our financial resilience against potential climate scenarios and help direct our investments, fleet planning, and overall sustainability strategy.

Following Türkiye's ratification of the Paris Agreement and its commitment to achieving net-zero carbon emissions by 2053, we have revisited our strategies in line with international agreements, global requirements, and the expectations of our stakeholders. In our 10-year strategic plan for 2023–2033, we identified combating climate change as one of the foundational pillars of Turkish Airlines' sustainable growth strategy and announced our goal to become a Carbon Neutral Airline by 2050.

By the end of 2024, we increased the number of next-generation aircraft in our fleet to 168 out of a total of 492, raising the share of next-generation aircraft to 34%. We plan for this ratio to reach 41% by the end of 2025 and 90% by 2033. With our next-generation aircraft, we achieve a 15–20% reduction in carbon emissions, while continuing our efforts to enhance operational efficiency and increase the use of Sustainable Aviation Fuel (SAF). We are in ongoing discussions on signing long-term purchase agreements with local producers for domestic production of SAF, which will play a key role in achieving aviation's long-term emission reduction targets, and we continue to evaluate investment options to support SAF production.

While accounting for a broad range of risks, from regulatory frameworks and technological transformations to market dynamics and climate conditions, we also view opportunities in areas such as sustainable fuel, energy efficiency, and operational transformation as strategic advantages.

As the global face of Türkiye, we continue to build partnerships both domestically and internationally. With this approach, we have joined the signatories of the Global SAF Declaration, which aims to decarbonize the aviation industry. Under the umbrella of the Türkiye Sustainable Aviation Platform, of which we are a founding member, we are working to develop a roadmap for sustainable aviation fuels in our country.

This holistic approach reflects Turkish Airlines' commitment to going beyond mere regulatory compliance, positioning itself as a company that contributes to the transformation of the sector and assumes responsibility for future generations.

We believe that every step we take will add value not only to today's world but also to the world of tomorrow. With this understanding, and in line with our sustainable growth goals, we fulfill our environmental, social, and governance-related responsibilities, act with a sense of global responsibility, and move forward together with our stakeholders to build a sustainable future.

Overview of the Report

Risk Number	Risk Type	Risk Description	Timeframe		
			Short	Medium	Long
Transition Risk 1 (TR1)	**Policy and Market**	Increasing number of regulations in various regions and countries mandating the use of SAF	●	●	●
Transition Risk 2 (TR2)	**Policy and Legal**	Countries mandating various carbon pricing mechanisms in line with the Paris Agreement targets and emission reduction commitments, leading to the double-charging of the same amount of emissions.	●	●	●
Transition Risk 3 (TR3)	**Legal and Market**	Rising carbon credit prices and uncertainties in credit pricing	○	●	●
Transition Risk 4 (TR4)	**Policy**	Climate Policies evolving toward stricter regulations and binding sanctions, including the taxation of aviation fuels	○	●	●
Physical Risk 1 (PR1)	**Chronic**	Increasing average atmospheric temperatures requiring higher thrust during aircraft take-off and cruise phases	○	○	●
Physical Risk 2 (PR2)	**Acute**	Rising frequency and severity of extreme weather events directly affecting flight operations	○	●	●
Physical Risk 3 (PR3)	**Acute**	Increasing extreme temperatures caused by extreme weather events affecting critical take-off parameters such as atmospheric temperature, altitude, aircraft take-off weight, and runway length	○	○	●
Physical Risk 4 (PR4)	**Chronic**	Rising average temperatures increasing the need for additional cooling for parked aircraft, such as GPU (Ground Power Unit) or APU (Auxiliary Power Unit) usage	○	○	●

Overview of the Report

Opportunity Number	Opportunity Description	Timeframe		
		Short	Medium	Long
Opportunity 1	Reducing aviation’s climate impact through the use of SAF and optimization of flight routes	○	●	●
Opportunity 2	Integrating investments in renewable energy use and resource efficiency–focused infrastructure into operational processes	●	●	●
Opportunity 3	Sustainability-focused practices	●	●	●

For TR1, which is one of the risks reasonably expected to affect the Group’s future financial soundness in the short, medium, and long term, the following sources were used: International Energy Agency – NZE 2050, IATA Net-Zero Roadmap scenarios, and European Commission – Fit for 55 (ReFuelEU Aviation), EASA. Information on the scope and boundaries of the scenario analyses for the Climate-related risks and opportunities listed in the table is presented under the tables in the section titled Analysis of Global Climate Scenarios (TSRS 2, 22a(i), 22b(i)3 and 25c). The impact assessment of these risks and opportunities is explained under the following sections: Impacts on Financial Position, Financial Performance, and Cash Flows (TSRS 2, 15b); Investment, Divestment, and Financing Plans Aligned with Climate Strategy (TSRS 2, 16c); and Changes in Financial Performance and Cash Flows in the Short, Medium, and Long Term (TSRS 2, 16d).

About the Report

Field of Activity, Affiliates, and Subsidiaries

Türk Hava Yolları Anonim Ortaklığı (“the Company” or “THY”) was established in 1933 to operate passenger and cargo transportation services both domestically and internationally.

The Company has 14 directly and indirectly held affiliates (collectively referred to as “the Group”). The business activities, ownership interests, and countries of registration of these affiliates are as follows:

Company Name	Field of Activity	Ownership Interest 31 December 2024	Country of Registration
THY Teknik A.Ş. (Turkish Technic)	Technical Maintenance	%100	Türkiye
THY Uçuş Eğitim ve Havalimanı İşletme A.Ş. (Turkish Airlines Flight Academy) (TAFA)	Training & Airport Operations	%100	Türkiye
THY Uluslararası Yatırım ve Taşımacılık A.Ş.	Cargo and Courier Transportation	%100	Türkiye
THY Teknoloji ve Bilişim A.Ş. (Turkish Technology)	Information and Technology Services	%100	Türkiye
THY Hava Kargo Taşımacılığı A.Ş. (Widect)	Cargo and Courier Transportation	%100	Türkiye
THY Destek Hizmetleri A.Ş. (TSS)	Support Services	%100	Türkiye
THY Özel Güvenlik ve Koruma Hizmetleri A.Ş.	Security Services	%100	Türkiye
AJet Hava Taşımacılığı A.Ş. (AJet)	Air Transportation	%100	Türkiye
THY Elektronik Para ve Ödeme Hizmetleri A.Ş. (TKPAY)	Payment Systems	%100	Türkiye
THY Ortak Sağlık Güvenlik Birimi Hizmetleri A.Ş.	Occupational Health and Safety Services	%100	Türkiye
THY Gayrimenkul Yatırım Hizmetleri A.Ş.	Real Estate Investment Services	%100	Türkiye
THY Spor A.Ş.	Sports Activities	%100	Türkiye
TCI Kabin İçi Sistemleri San. ve Tic. A.Ş. (TCI Aircraft Interiors) (TCI)	Aircraft Cabin Interior Products	%80	Türkiye
TSI Seats INC.	Aircraft Cabin Interior Products	%80	USA

The Company has 9 joint ventures under joint control. The business activities, ownership interests, and countries of registration of these joint ventures are as follows:

Company Name	Field of Activity	Ownership Interest 31 December 2024	Country of Registration
Güneş Ekspres Havacılık A.Ş. (SunExpress)	Air Transportation	%50	Türkiye
THY DO&CO İkram Hizmetleri A.Ş. (Turkish DO&CO)	Catering Services	%50	Türkiye
TGS Yer Hizmetleri A.Ş. (TGS)	Ground Services	%50	Türkiye
THY OPET Havacılık Yakıtları A.Ş. (THY Opet)	Aviation Fuels	%50	Türkiye
P&W T.T. Uçak Motoru Bakım Mrkz. Ltd. Şti. (TEC)	Technical Maintenance	%49	Türkiye
Air Albania SHPK (Air Albania)	Air Transportation	%49	Albania
We World Express Ltd. (We World Express)	Cargo and Courier Transportation	%45	Hong Kong
Goodrich THY Teknik Servis Merkez Ltd. Şti. (TNC) (Goodrich)	Technical Maintenance	%40	Türkiye
TFS Akaryakıt Hizmetleri A.Ş. (TFS Akaryakıt)	Aviation Fuel	%25	Türkiye

Functional and Presentation Currency

The Company's statement of financial position, statement of profit or loss, and cash flow statement are significantly influenced by the US dollar, which reflects the underlying substance of the Company's operations. For this reason, the Company uses the US dollar as its functional currency in the preparation of its financial statements. The US dollar was also used in the preparation of financial data related to sustainability. As year-end financial statements must be prepared in Turkish Lira under Article 70 of the Turkish Commercial Code, and a presentation currency must be used in the sustainability report under Article 24 of TSRS S1, financial data related to sustainability has been translated into Turkish Lira and published in accordance with TAS 21. Amounts are presented in millions of Turkish Lira (TRY) and US Dollars, unless otherwise stated.

US Dollar / TRY	Year ended December 31, 2024
End-of-period Buying Rate	35.2803
End-of-period Selling Rate	35.3438
Average Rate	32.7825

Scope of the Report

This report has been prepared based on the 12-month reporting period from January 1 to December 31, 2024. The sustainability report is an integral part of the year-end financial reports and should be read in conjunction with the financial statements.

The TSRS Compliant Sustainability Report covers THY and its subsidiaries, in consistency with the financial statements.

Statement of Compliance

The accompanying Sustainability Report has been prepared in accordance with the Türkiye Sustainability Reporting Standards (TSRS), pursuant to the provisions of the "Board Decision on the Scope of Implementation of the Türkiye Sustainability Reporting Standards" and the "Board Decision on the Determination of the Türkiye Sustainability Reporting Standards" issued by the Public Oversight, Accounting, and Auditing Standards Authority (KGK) and published in the Official Gazette dated December 29, 2023 and numbered 32414.

Approval of the TSRS Compliant Sustainability Report

The Sustainability Report was approved by the Company's Board of Directors on 05.08.2025.

Transitional Provisions

In accordance with Provisional Article 1 of the Public Oversight, Accounting and Auditing Standards Authority's Board Decision on the Scope of Application of the Türkiye Sustainability Reporting Standards (TSRS), comparative information has not been presented in the 2024 TSRS Compliant Sustainability Report; and in accordance with Provisional Article 3, Scope 3 greenhouse gas emissions have not been disclosed.

Pursuant to paragraph E5 of TSRS 1 General Requirements for Disclosure of Sustainability-related Financial Information, the 2024 TSRS Compliant Sustainability Report includes only information on climate-related risks and opportunities.

Materiality

The Group discloses the material impacts of sustainability-related risks and opportunities in terms of its financial position, financial performance, and cash flows. The threshold for materiality is defined as the level at which the information could reasonably be expected to influence the decisions of users of general purpose financial statements.

In determining the materiality threshold, the following items were considered: "Total Assets" from the Consolidated Statement of Financial Position for financial position and the "Profit for the Period from Continuing Operations" from the Consolidated Statement of Profit or Loss for financial performance and cash flows.

In this context, an impact of 0.5% on the financial statement items mentioned above is classified as "Almost None," 1% as "Very Low," 2% as "Low," 3% as "Moderate," 4% as "High," and 5% as "Very High." When evaluated together with the likelihood of occurrence, these risks and opportunities are classified as "negligible," "low," "acceptable/assessable," "high/material," and "unacceptable/high materiality."

Risks and opportunities classified as "high/material" and "unacceptable/high materiality" (cells highlighted in red and orange in the table) are considered material for the Group. The total impact scores were calculated by multiplying the likelihood of occurrence by the magnitude of impact for each risk and opportunity.
The matrix below shows the materiality levels:

Materiality Matrix

IMPACT \ PROBABILITY	Hardly Ever	Rare	Occasionally	Less Likely	Likely	Very Likely	Almost Certain
5% Very High	Acceptable / Assessable	Acceptable / Assessable	High / Material	Unacceptable / High Materiality	Unacceptable / High Materiality	Unacceptable / High Materiality	Unacceptable / High Materiality
4% High	Low	Acceptable / Assessable	Acceptable / Assessable	High / Material	High / Material	Unacceptable / High Materiality	Unacceptable / High Materiality
3% Moderate	Negligible	Low	Low	Acceptable / Assessable	Acceptable / Assessable	High / Material	High / Material
2% Low	Negligible	Negligible	Negligible	Low	Low	Acceptable / Assessable	Acceptable / Assessable
1% Very Low	Negligible	Negligible	Negligible	Negligible	Negligible	Low	Low
0.5% Almost None	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Short, Medium, and Long-Term Distinctions

Aware of the risks and opportunities presented by climate change, the Group has established a robust structure to proactively adapt and align its business model and strategy with the impacts of climate change over the short, medium, and long term. Anchored in a sustainable growth mindset, the Group has taken climate action as a core component of its corporate strategy. Accordingly, the timeframes have been defined as outlined in the Group's Climate Transition Plan.

The short-term period is defined as 0 to 3 years, considering dynamic factors such as rapidly changing weather patterns, fluctuations in demand, and fuel prices.

Aligned with the Group's strategic planning related to aircraft design, engineering, and manufacturing trends, the 4 to 10-year period is classified as the medium-term.

Long-term strategies were determined based on the fact that the average economic life of passenger aircraft, right-of-use assets, major maintenance schedules, and lease obligations is 20 years. Therefore, the long-term timeframe has been defined as 11 to 20 years.

The timeframe definitions specified here have been used in assessing the impacts of Climate-related risks and opportunities on the financial statements.

Value Chain

The value chain refers to the Company's activities, the processes required for delivering products and services, and its stakeholders. The value chain consists of two main categories: upstream and downstream.

The upstream category of the Company's value chain primarily includes key suppliers and investors. Key suppliers include aircraft manufacturers, engine manufacturers, fuel suppliers, aircraft maintenance and repair companies, and ground services equipment manufacturers.

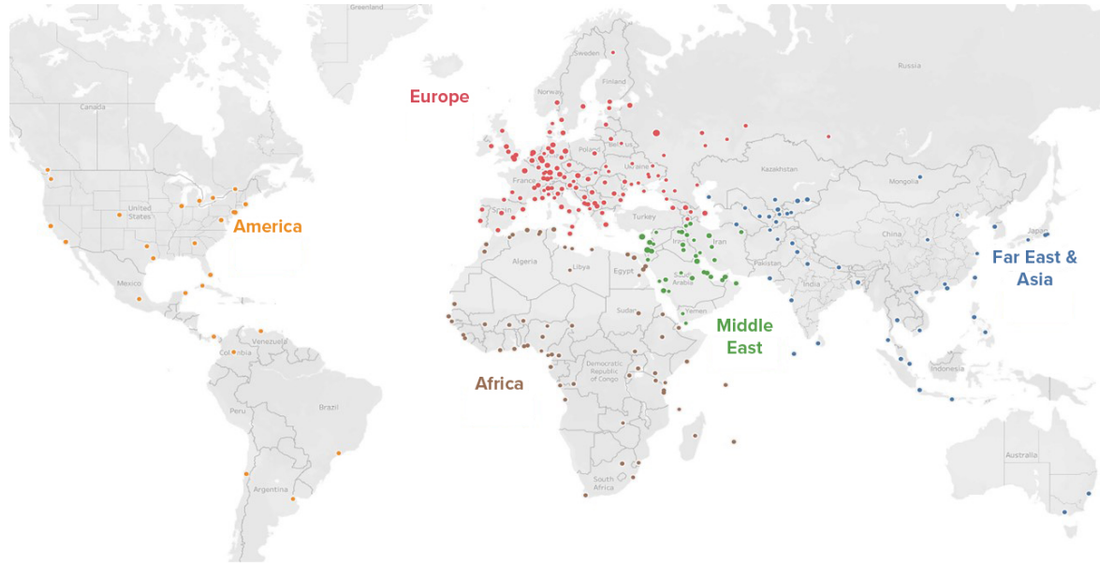
The downstream components of the value chain include distributors, customers, and passengers. Distributors consist of global distribution systems (GDS) and travel agencies. The Company has 14 subsidiaries (theGroup) in which it holds direct and indirect interests, and 9 joint ventures under shared management. Business partners that have a direct impact on the products and services provided to customers are also considered critical suppliers. The Group's operations cover a variety of business models, including technical maintenance, training and airport operations, cargo and courier transportation, technology, support services, security services, payment systems, occupational safety, real estate, and in-cabin aircraft products.

Under the TSRS Compliant Sustainability Report, sustainability and Climate-related risks and opportunities have been assessed across the entire value chain in line with Group operations. The section of this report titled Impacts on the Business Model and Value Chain addresses each risk and opportunity specifically and analyzes current and anticipated impacts. The risk expected to have a reasonably significant impact is concentrated in the upstream category.

Its impact on the business model is primarily concentrated in the Company's direct operations, particularly in passenger and cargo flight activities.

Flight Network

As the airline that flies to more countries than any other in the world, THY connects Türkiye with many regions across the globe through its extensive flight network covering 131 countries, 345 cities, and 352* destinations, offering passengers easy access to every destination. In 2024, in line with its strategic growth objectives, THY continued to expand its flight network and, together with AJet, added 7 new destinations.



131 Countries

345 Cities

352 Total Destinations

7 New Flights with AJet

*As of the end of 2024, due to force majeure, flights are operated to 121 countries, 282 cities, and 287 destinations.

Governance

Organizational Structure Related to Sustainability and Climate

Board of Directors

The Company's Board of Directors is responsible for managing the Group's sustainability and Climate-related risks and opportunities. The Board of Directors serves as the highest authority to ensure that both Climate-related and other sustainability risks do not compromise the Company's long-term interests and that effective risk management practices are in place.

The Board of Directors approves strategic objectives related to climate change, ensures alignment with national and international standards, and, when necessary, takes preventive measures against potential issues. It continuously and effectively monitors the Group's targets, operations, and performance through the Sustainability Committee, which reports directly to the Board of Directors. The Board of Directors monitors the sustainability-related targets, activities, and performance of the subsidiaries and joint ventures listed under the section Scope of Activities, Subsidiaries and Affiliates through the Sustainability Committee.

The Sustainability Committee is chaired by the Company's CEO, who is also a member of the Board of Directors.

The duties and responsibilities of the Sustainability Committee are defined in the Sustainability Committee Operating Principles Procedure.

With respect to the Group's operations, the Sustainability Committee is responsible for:

- Ensuring that the necessary work is conducted to define the Group's sustainability strategy, policy, and short, medium, and long-term targets,
- Managing sustainability and Climate-related risks and opportunities across environmental, social, and governance issues, and ensuring their integration into the Group's sustainability strategy,
- Evaluating national and international developments and stakeholder expectations related to sustainability, initiating best practices as internal projects, and monitoring their progress,
- Ensuring that employees are informed of the sustainability strategy and for promoting this strategy as part of the Group's corporate culture,
- Promoting the adoption of the sustainability strategy, policy, and practices by all Group stakeholders,
- Reviewing matters that may affect group operations, which are addressed in national and international committees, technical teams, and working groups in which Group companies participate, and
- Evaluating projects and proposed decisions submitted by the Sustainability Subcommittees and, when necessary, authorizing the establishment of new Sustainability Subcommittees within the Group. (TSRS 2, 6a(i))

Climate-related Skills and Competencies

The CEO of Turkish Airlines, who also serves as a member of the Board of Directors and the Chair of the Sustainability Committee, plays a central role in the corporate governance structure to ensure strategic oversight of Climate-related risks and opportunities. With extensive expertise in the sector, managerial experience, and proficiency in sustainability matters, the CEO directly coordinates the formulation and implementation of strategies, as well as their oversight at the executive level.

To ensure the effectiveness of Climate-related strategies across the organization, tailored training programs are implemented for the CEO, senior management, and all employees. These trainings are scheduled periodically based on the validity period of each course and focus on building the necessary competencies in sustainability. The training content includes topics such as Corporate Sustainability, ISO 14001 Environmental Management System, Greenhouse Gas Awareness, Energy Efficiency, Waste Management, and ISO 45001 Occupational Health and Safety, along with modules that strengthen institutional capacity in governance, strategy, and sustainability reporting.

Training programs are delivered by qualified institutions and expert trainers. Participation records and content are monitored by the relevant departments and reviewed at least once annually. Under the leadership of the CEO, the Sustainability Committee and its sub-working groups monitor sustainability priorities and Climate-related developments.

The management is informed about sectoral best practices and current standards via regular information exchange with relevant internal and external stakeholders. (TSRS 2, 6a(ii))

Assessment of Climate-related Risks and Opportunities

The Sustainability Committee convenes at least once per quarter for a minimum of four meetings per year. In addition to these regularly scheduled meetings, the committee may also convene as needed without waiting for the next scheduled meeting. The CEO reports Climate-related risks and opportunities directly to the Board of Directors. (TSRS 2, 6a(iii))

The Company's Board of Directors regularly monitors the strategic decisions and targets set by the Sustainability Committee, reviewing them in light of the Company's past performance and activities, and provides guidance accordingly.

The Board of Directors evaluates Climate-related risks and opportunities by considering the following issues:

- Reviewing and guiding annual budgets,
- Overseeing and guiding scenario analysis,
- Overseeing and guiding the setting of corporate targets,
- Monitoring progress toward corporate targets,
- Approving corporate policies and/or commitments,
- Monitoring the implementation of the business strategy,

- Overseeing reporting, audit, and assurance processes,
- Monitoring the implementation of the climate transition plan,
- Overseeing and guiding business strategy development,
- Overseeing and guiding acquisitions, mergers, and divestitures,
- Monitoring supplier compliance with corporate requirements,
- Monitoring compliance with corporate policies and/or commitments,
- Overseeing and guiding the development of the climate transition plan,
- Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities,
- Overseeing and guiding engagement in public policy,
- Reviewing and guiding innovation and R&D priorities,
- Approving and/or overseeing employee incentive structures, and
- Overseeing and guiding major capital expenditures. (TSRS 2, 6a(iv))

The Company's Board of Directors takes sustainability and Climate-related risks and the corresponding responses into account when determining the Group's operational and sustainability strategies, annual budget, and medium to long-term financial plans. These risks and opportunities are integrated into decision-making processes and assessed in alignment with budgeting, financial planning, and strategic governance practices.

Adding low-emission, next-generation aircraft to the fleet as part of the 2050 "Carbon Neutral Airline" target is expected to reduce emissions while also potentially boosting customer satisfaction and loyalty. However, this strategic decision entails substantial capital investment and brings significant financial liabilities. This leads to trade-offs between gains, such as environmental benefits and customer loyalty, and cost and capital requirements.

Additionally, such investments may have non-financial impacts. For example, fleet transformation may cause temporary operational disruptions and require additional training and adaptation efforts for employees. Such indirect effects are also considered within the scope of trade-offs. (TSRS 2, 6a(iv))

Setting Targets Related to Risks and Opportunities

The Sustainability Committee defines the Group's climate change and sustainability strategy, including its short, medium, and long-term targets, along with the actions needed to achieve them.

The Sustainability Subcommittees established within the company plan, implement, and monitor the necessary actions in line with the defined strategy, and report the outcomes to the Sustainability Committee.(TSRS 2, 6a(v))

All rights, benefits, and compensation provided to the Group's Board members and senior executives, along with the criteria and remuneration principles used to determine them, are defined in the Remuneration Policy, which is also published on the Investor Relations website. The determination of Board members' compensation is included as a separate agenda item in the General Assembly meeting. Relevant performance metrics are not included in the Remuneration Policy. (TSRS 2, 6a(v))

Management's Role in the Governance of Climate-related Risks and Opportunities

The document that defines the processes for monitoring, managing, and overseeing sustainability and Climate-related risks and opportunities within the Company is approved by the CEO. (TSRS 2, 6b(i))

The Sustainability Committee is the committee where Climate-related matters are most extensively discussed and includes members of the Company's Board of Directors. This committee operates with authority at the level of the Board of Directors and has direct decision-making power on climate change-related topics.

The committee's oversight is conducted through meetings chaired by the CEO, with the participation of the Chief Officers, the Senior Vice President (SVP) of Subsidiaries, SVP of Legal and Compliance, SVP of Cabin Crew, and the Chief Financial Officer (CFO). Decisions and performance evaluations made during committee meetings are regularly shared with senior management and the Board of Directors. (TSRS 2, 6b(i))

Control Processes and Procedures

To oversee and monitor sustainability and Climate-related risks and opportunities, the following procedures have been established: the Sustainability Committee Operating Principles Procedure, the Sustainability Risks and Opportunities Management Procedure, and the Compliance Review Procedure. These processes are implemented based on the core documents "Sustainability Policy" and "Environmental Management Manual," ensuring integration with other internal functions. Within the scope of these procedures, the following elements are addressed:

- Environmental Management System (IEnvA),
- Carbon Disclosure Project (CDP) and the Task Force on Climate-related Financial Disclosures (TCFD), Türkiye Sustainability Reporting Standards (TSRS),
- Emission Risk Assessment,
- IEnvA Wildlife Module (IWT),
- Biodiversity,
- Energy.

Within this scope, activities related to identifying and assessing the Group's environmental risks and opportunities are conducted. These activities support an integrated approach across the organization by enhancing the applicability of sustainability strategies. (TSRS 2, 6b(ii))

Strategy

Climate-related Risks and Opportunities

The Group identifies its Climate-related risks and opportunities in the short, medium, and long term, which may reasonably impact its operations and financials. Risks that are reasonably expected to affect the Group's future financial viability are classified into physical and transition risks, and are addressed separately. Four transition risks (TR: policy, legal, technology, and market) and four physical risks (PR: acute and chronic) that may significantly impact the business model are explained below. Details regarding four transition risks (policy, legal, technology, and market), four physical risks (acute and chronic), and three opportunities that could affect the business model are presented on pages 15–25. (TSRS 2, 10a&b&c)

Additionally, there are some risks and opportunities considered for evaluation and monitoring, which are not included in the report but deemed important. The most significant of these risks is the limited availability of SAF, which plays a key role in the decarbonization of the aviation industry, and the inability to meet the rapidly increasing demand for SAF. According to IATA, despite the fact that SAF production doubled in 2024 compared to 2023, reaching 1 million tons, this amount accounts for only 0.3% of global jet fuel demand. In 2025, SAF production is expected to increase to 2.1 million tons, covering approximately 0.7% of global demand.

Growing regulatory pressures are imposing obligations on fuel suppliers to provide certain minimum shares of SAF. However, if supply fails to meet demand, fuel suppliers may be inclined to pass on regulatory compliance costs to their value chain and airline companies. This may lead to increased operating costs and poses a particular challenge for cost management for airlines operating in regions subject to such regulations. To manage this risk effectively, airlines need to strengthen their financial planning, develop alternative fuel strategies, and enhance supply chain collaborations. The Group is advancing its strategic approach accordingly, with a focus on managing uncertainties in SAF supply.

While identifying Climate-related risks and opportunities that it anticipates could reasonably impact its financial viability, the Group reviews information on past events, current conditions, and future projections every reporting year, using reasonable and supportable information. (TSRS 2, 6)

Sectoral Alignment Assessment for Climate-related Risks and Opportunities

The risks and opportunities identified for the Group and expected to have a reasonably material impact on its financial adequacy have been assessed in accordance with TSRS 1, General Provision 54, by applying the Türkiye Sustainability Reporting Standards (TSRS 2) and taking into consideration the relevant sector-specific disclosure topics. Accordingly, the applicability of the sectoral guidance disclosure topics has been evaluated as follows: "TSRS Volume 61 – Airlines" for THY and its subsidiary AJet Air Transportation Inc.; "TSRS Volume 60 – Air Freight & Logistics" for THY Cargo Air Transportation Inc.; "TSRS Volume 58 – Software & IT Services" and "TSRS Volume 55 – Hardware" for THY Technology and Information Inc. (Turkish Technology); and "TSRS Volume 46 – Aerospace & Defense" for TCI Cabin Interior Systems Inc. and TSI Seats Inc.

There is no directly applicable sector-specific guidance for THY Teknik A.Ş. (Turkish Technic), THY Uçuş Eğitim ve Havalimanı İşletme A.Ş. (TAFA), THY Destek Hizmetleri A.Ş. (TSS), THY Özel Güvenlik ve Koruma Hizmetleri A.Ş., THY Ortak Sağlık ve Güvenlik Birimi Hizmetleri A.Ş., and THY Elektronik Para ve Ödeme Sistemleri A.Ş. (TKPAY). Therefore, a judgment process was carried out under paragraph 57 of TSRS, and relevant sources were reviewed.

THY Elektronik Para ve Ödeme Sistemleri A.Ş. (TKPAY), THY Gayrimenkul Yatırım Hizmetleri A.Ş., THY Uluslararası Yatırım ve Taşımacılık A.Ş., and THY Spor A.Ş. have not been included in the evaluation process, as they did not have any activities during the current reporting year. In this context, the current conditions for subsidiaries have been reviewed, and no risk or opportunity has been identified during the reporting period that could have a material impact on the financial statements based on reasonable and supportable information. (TSRS 2, 12)

In determining the reported risks, guidance sources from the Türkiye Sustainability Reporting Standards 2 – Climate-related Disclosures and the Sector-Specific Application Guidelines of TSRS 2 were used, particularly from Appendix Volume 60: Air Transportation and Logistics and Appendix Volume 61: Airlines. (TSRS 1, 75b)

Transition Risks

The transition risks the Group faces or may face due to climate change are explained below.
The judgment and measurement uncertainties related to these risks can be found in the section titled **"Calculation Principles of Metrics."**

RISK NUMBER : TR1

Description:	**Timeframe:**
The increasing number of regulations mandating the use of SAF in different regions and countries is one of the risks reasonably expected to affect the Group's future financial soundness in the short, medium, and long term.	Short/Medium/Long Term

Effects on Business Model & Value Chain	No significant impact has been observed on the Group's financial indicators or business model during the reporting year in relation to SAF usage mandates. Under the Fit for 55 package, the ReFuelEU Aviation Regulation, which came into force on January 1, 2024, mandates that fuel suppliers at European Union (EU) airports include a minimum percentage of Sustainable Aviation Fuel (SAF) in the fuel provided to aircraft operators starting in 2025, and a minimum share of synthetic fuel (e-fuel, PtL) beginning in 2030. While the regulation targets a 70% SAF usage rate by 2050, a similar regulatory framework is expected to be implemented in the United Kingdom in 2025, mandating SAF usage starting at 2% and and gradually increasing to 22% by 2040. In Türkiye, the Directorate General of Civil Aviation (DGCA) plans to introduce a SAF usage mandate for international flights departing from Türkiye as of 2026, through the SHT-SAF Instructions. SAF-related obligations emerging across various geographies are expected to significantly increase global demand. However, given the current limited SAF production and its considerably higher cost compared to conventional jet fuel, this situation represents one of the most significant challenges to the decarbonization of the aviation sector. If regulations on SAF usage become more widespread across different countries, the Group may face increased operational costs and significant impacts on its direct operations within the value chain. On the other hand, the phased increase in SAF usage required by current and upcoming regulations is dependent on SAF availability. At present, SAF production remains limited, and avoiding supply shortages in the future will depend on technological advancements and access to feedstock. Any impacts resulting from the inability to scale up SAF production capacity are expected to concentrate within the Group's supply chain (TSRS 2, 15b, 13a&b)
Current Financial Effects	The SAF usage mandate under these regulations will begin in 2025. Therefore, this risk does not have any current impact on the Group's financial position, financial performance, or cash flows for the current reporting period. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	The estimated cost of SAF under the regulations has been analyzed in two separate scenarios: minimum and maximum. In the scenario where the minimum price is calculated, the relevant risk does not have a significant impact on the financial position, performance, or cash flows in the short and medium term. In the calculations made with the maximum price, no impact has been observed on the financial position or cash flows. In the analysis based on the likelihood of the maximum estimated price of SAF, no impact is expected on financial performance in the short term, but a risk is expected to emerge in the "High/Material" category in the medium term. In the event that the relevant risk materializes, there will be an increase in the cost of goods sold (fuel cost as per Notes 22 and 26 in the 2024 12 months Financial Statements) in the income statement. Considering the measures taken in response to this risk, such as efficiency improvements, adjustments in ticket prices, and the resulting changes in demand, a change in revenue is also expected in the income statement (TSRS 2, 2.13(a)). As a result of all these effects, a 3% decrease is expected in the "Profit for the Period from Continuing Operations" in the medium-term in the income statement. Given that the likelihood of the relevant risk is considered "Almost Certain," it is expected to fall into the "High/Material" risk category according to the risk matrix on page 8. (TSRS 2, 15b)

Transition Risks

RISK NUMBER : TR2

Description:	**Timeframe:**
The increasing number of countries implementing carbon pricing mechanisms poses a risk for airline companies. In addition to existing regulations such as the global ICAO-CORSIA, countries are requiring various carbon pricing tools such as Emission Trading System (ETS) allocations and carbon taxes, in line with the targets of the Paris Agreement and emission reduction commitments. This creates the risk of double charging for the same amount of emissions. This is not expected to impact the Group's future financial viability in the short, medium, or long term.	Short/Medium/Long Term

Effects on Business Model & Value Chain	No significant impact from the implementation of carbon pricing mechanisms has been observed in the current reporting year. Considering that countries not included in CORSIA may voluntarily comply with CORSIA regulations or, through national decisions, implement additional carbon pricing mechanisms such as different forms of taxation, emission offset obligations, or Emissions Trading Systems (ETS), these regulations are expected to create additional costs for airline companies. The increase in the number of countries implementing carbon pricing mechanisms introduces strategic uncertainty for airline companies in managing operational costs and in long-term financial planning. On the other hand, the wider adoption of such regulations could lead to higher carbon charges and financial obligations that the Group will be required to pay within the scope of its direct operations. (TSRS 2, 15b, 13a&b)
Current Financial Effects	In the reporting year, the risk arising from an increase in the number of countries implementing carbon pricing mechanisms does not have a material impact on the Group's financial position, financial performance, or cash flows. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	The uncertainty of supply for CORSIA-compliant projects scheduled to be implemented by 2035, demand variability due to airline emission reduction strategies, and the potential for changes in the implementation of different carbon pricing mechanisms by countries based on their climate policies in the short term all contribute to significant uncertainties in the financial statement impacts. The impact of ETS implementations on financial position, performance, and cash flows is negligible. On the other hand, the effect of CORSIA has not been disclosed due to uncertainties. As it does not represent a cost in the current reporting period, there is no direct reflection in the financial position or the statement of profit or loss. In the event of payments to CORSIA-compliant third-party projects, an increase is expected under "Cost of Sales" in the statement of profit or loss (presented as a separate line item in Note 22 – Expenses by Nature and Note 26 – Cost of Sales in the Financial Statements). If the projects are carried out by the Group, an increase is expected in the "Tangible and Intangible Fixed Assets" groups. (TSRS 2, 15b)

Transition Risks

RISK NUMBER : TR3

Description:	**Timeframe:**
The increase in carbon credit prices poses regulatory transition risks on the Group's direct activities. The uncertainties in the cost of emission reduction credits (CORSIA Eligible Emissions Units - CORSIA EEUs) in line with the requirements of the International Civil Aviation Organization (ICAO) for the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) represent a market risk for the Group. This is not expected to impact the Group's future financial viability in the short, medium, or long term.	Medium/Long Term

Effects on Business Model & Value Chain	No current impact has been observed in the reporting year regarding the increase in carbon credit prices. According to the assessments of management consulting firms, carbon credit unit prices are expected to trend upwards in the future, and it is recommended that companies address carbon costs as a material risk in their financial planning. Such an increase could directly affect companies' operational costs and may require them to adopt proactive approaches in their strategic cost management processes. While projections regarding the increase in the cost of CORSIA-compliant carbon credits are uncertain, it is anticipated that the cost of carbon emission reduction credits will rise with the demand generated to meet regulatory requirements for the aviation sector. (TSRS 2, 15b, 13a&b)
Current Financial Effects	The increase in carbon credit prices does not have an impact on the Group's financial position, financial performance, or cash flows during the reporting period. (TSRS, 15a, 16a)
Anticipated Financial Effects	The price impact of carbon credits required to be purchased due to national and international regulations and CORSIA has not been disclosed due to high uncertainties in supply and demand, and the net impact of this risk on the financial statements has not been specified. In parallel with TR2, an increase is expected in the "Cost of Sales" in the Profit and Loss Statement, and in the "Tangible and Intangible Fixed Assets" categories if the projects are carried out by the Group (TSRS 2, 15b)

Transition Risks

RISK NUMBER : TR4

Description:	**Timeframe:**
The development of climate policies is moving towards stricter regulations and binding sanctions to achieve the targets of the Paris Agreement. The revision to be made regarding the taxation of aviation fuels under the Energy Tax Directive (ETD) within the European Union's Fit for 55 Package is not expected to impact the Group's future financial capacity in the short, medium, or long term.	Medium/Long Term

Effects on Business Model & Value Chain	No current impact has been observed in the reporting year due to developments in climate policies. Regulations such as additional taxation on the use of conventional jet fuel in the aviation sector could create an additional financial burden for aviation activities and lead to increased operational costs for airline companies. (TSRS 2, 15b, 13a&b)
Current Financial Effects	The potential implementation of traditional jet fuel taxes due to climate risks does not have an impact on the Group's financial position, financial performance, or cash flows during the current reporting period. (TSRS 2, 15a,16a)
Anticipated Financial Effects	The financial impact of potential taxes on traditional jet fuels due to climate risks has remained below the materiality level due to the limited existing legal regulations. These taxes are expected to affect the Cost of Sales in the Profit and Loss Statement (Fuel Expenses listed in Note 22 - Expenses by Nature and Note 26 - Cost of Sales in the 2024 12 Months Financial Statements). (TSRS 2, 15b)

Physical Risks

The physical risks the Group faces or may face due to climate change are explained below.
The judgment and measurement uncertainties related to these risks can be found in the section titled **"Calculation Principles of Metrics."**

RISK NUMBER: PR1

Description:	**Timeframe:**
An increase in average atmospheric temperature, coupled with a decrease in air density due to rising average temperatures, may require aircraft to generate more thrust during take-off and cruise. This need could potentially create a physical climate risk that could lead to increased long-term trip fuel consumption (take-off, cruise, and climb fuel). This increased fuel consumption could lead to additional costs. It is not expected to impact the Group's future financial viability in the short, medium, or long term.	Long Term

Effects on Business Model & Value Chain	An analysis of the data from the relevant reporting year shows that this physical risk does not have a significant impact on the Group's financial position, financial performance, or cash flows. However, considering the global warming trend, the potential increase in engine power requirements and more thrust during take-off and cruise may, in the long term, lead to higher fuel consumption and operational costs. This development affects processes such as supply management, fuel procurement, and operations management across the value chain. (TSRS 2, 15b, 13a&b)
Current Financial Effects	Due to the change in average atmospheric temperature, aircraft fuel consumption does not have a significant impact on the financial position, financial performance, or cash flows when flight data from the relevant reporting year is analyzed. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	Based on the optimistic SSP1-2.6 and pessimistic SSP5-8.5 climate scenarios, the cost projections for the relevant physical climate risk indicate that there is no impact on financial position, performance, or cash flows in the short and medium-term. If the materiality threshold is exceeded, it is expected to affect the Cost of Sales in the Profit or Loss Statement (specifically, Fuel Expenses listed under Note 22 – Expenses by Nature, and Note 26 – Cost of Sales). (TSRS 2, 15b)

Physical Risks

RISK NUMBER: PR2

Description:	**Timeframe**
The increase in the frequency and severity of extreme weather events, including heavy rainfall and thunderstorms, poses a physical climate risk that could have a significant medium and long-term impact on the Group's operations. This could impact direct flight operations, such as flight cancellations, diversions, and delays, and could lead to increased operational costs. It is not expected to affect the Group's future financial viability in the short, medium, or long term.	Medium/Long Term

Effects on Business Model & Value Chain	An analysis of the data on flight operations carried out during the reporting year shows that the increased frequency and severity of extreme weather events has no significant impact on the Group's financial position, financial performance, or cash flows. However, a medium to long-term increase in extreme weather conditions driven by climate change may pose a risk of higher maintenance and repair expenses as well as increased operational costs. These developments will require comprehensive strategic adjustments across the airline's value chain in areas such as emergency planning, fleet management, and risk sharing. This risk calls for comprehensive strategic adaptations in core business processes such as emergency planning, flight operations management, and risk sharing. On the other hand, maintenance and repair infrastructure, the supply chain, optimized flight planning, and advanced weather forecasting systems should also be supported by new approaches and investments aimed at minimizing the impact of extreme weather events. (TSRS 2, 15b, 13a&b)
Current Financial Effects	An analysis of the flight data for the reporting year shows that the increased frequency and severity of extreme weather events has no significant impact on the Group's financial position, financial performance, or cash flows. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	The revenue loss calculated based on the optimistic IPCC SSP1-2.6 and pessimistic IPCC SSP5-8.5 scenarios for the relevant physical climate risk has no impact on financial position, performance, or cash flows in the short and medium-term. If the materiality threshold is exceeded, it is expected to affect the Cost of Sales in the Profit or Loss Statement (specifically, Maintenance Expenses listed under Note 22 – Expenses by Nature and Note 26 – Cost of Sales), as well as Revenue (specifically, Passenger and Cargo Revenue in the table under Note 25 – Revenue). (TSRS 2, 15b)

Physical Risks

RISK NUMBER: PR3

Description:	**Timeframe:**
Increases in extreme temperatures from extreme weather events are among the physical climate risks that could have a significant impact on airline operations in the long term. It is crucial to ensure that the appropriate atmospheric temperature, altitude, aircraft take-off weight, and runway length criteria are met during aircraft take-off. Failure to meet these criteria under extreme temperature conditions could necessitate reducing payload to reduce aircraft take-off weight, leading to increased operational costs. This risk is not expected to impact the Group's future financial viability in the short, medium, or long term.	Long Term

Effects on Business Model & Value Chain	The current financial impact of this physical risk could not be calculated due to the lack of recorded operational data for the reporting year regarding payload loss resulting from changes in aircraft take-off weight caused by rising extreme temperatures. However, in the long term, a rise in average temperatures may lead to more frequent take-off restrictions, which has the potential to increase operational costs and result in revenue loss. In addition, a reduction in cargo and passenger capacity, along with an increased need for traffic capacity revisions, may lead to higher costs across the value chain. This risk could particularly affect business processes such as flight operations management, schedule planning, and revenue management. To adapt to rising temperature conditions, strategies such as operational flexibility, evaluating alternative aircraft types, and potential infrastructure investments are being considered, which may bring additional cost and planning requirements. (TSRS 2, 15b, 13a&b)
Current Financial Effects	Due to the absence of recorded data in the reporting year regarding payload loss in aircraft caused by rising extreme temperatures, the effect of this physical climate risk on the Group's financial position, financial performance, or cash flows cannot be calculated. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	Based on the optimistic SSP1-2.6 and pessimistic SSP5-8.5 scenarios, the cost estimates for the relevant physical climate risk show no impact on financial position, performance, or cash flows in the short and medium term. If the materiality threshold is exceeded, it is expected to affect Revenue in the Profit or Loss Statement (specifically, Passenger and Cargo Revenue in the table under Note 25 – Revenue). (TSRS 2, 15b)

Physical Risks

RISK NUMBER: PR4

Description:	**Timeframe:**
Rising average temperatures pose a physical climate risk that could lead to increased energy consumption by increasing the additional cooling needs of parked aircraft and the use of GPUs (Ground Power Units) or APUs (Auxiliary Power Units). This situation carries the potential for increased energy needs and costs, potentially creating additional environmental and financial impacts on the Group's operations. It is not expected to impact the Group's future financial viability in the short, medium, or long term.	Long Term

Effects on Business Model & Value Chain	As a result of the cost analysis of GPU (Ground Power Unit) energy use for parked aircraft due to the increase in average temperatures, this physical risk has had no significant impact on the Group's financial position, financial performance, or cash flows in the reporting year. A continued rise in temperatures due to climate change may increase cooling demands for parked aircraft and, in turn, energy consumption. This could lead to more frequent use of resources such as GPU or APU, resulting in a potential rise in fuel/energy costs and additional financial burdens in operational processes. This risk will particularly affect ground services, energy supply, and maintenance/operations processes. As increased cooling requirements directly affect the frequency of ground equipment use and fuel/energy supply planning, the Group may need to reassess alternative cooling methods and its operational efficiency. (TSRS S2, 15b, 13a&b)
Current Financial Effects	As a result of the cost analysis conducted due to GPU (Ground Power Unit) energy use for parked aircraft driven by the increase in average temperatures, this physical climate risk had no significant effect on the Group's financial position, financial performance, or cash flows in the reporting year. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	Based on the optimistic SSP1-2.6 and pessimistic SSP5-8.5 scenarios, the cost estimates for the relevant physical climate risk show no impact on financial position, performance, or cash flows in the short and medium term. If the materiality threshold is exceeded, it is expected to affect the Cost of Sales in the Profit or Loss Statement (specifically, Ground Services Expenses listed under Note 22 – Expenses by Nature and Note 26 – Cost of Sales). (TSRS 2, 15b)

Opportunities

Climate-related opportunities that could contribute to the Group's long-term sustainable value creation capacity and influence investor decision-making are outlined below. Judgment and measurement uncertainties related to these opportunities can be found in the section titled **"Calculation Principles of Metrics."**

OPPORTUNITY 1

Description:

Use of SAF and optimization of flight routes offer an integrated solution for reducing aviation's climate impact. Studies show that SAF with low aromatic and sulfur content can reduce CO_2 and particulate matter emissions while also limiting contrail formation, thereby lowering radiative forcing. When implemented alongside route optimization, contrail formation can be minimized, particularly under high-risk atmospheric conditions. This approach is expected to reduce both direct and indirect emissions, supporting compliance with carbon regulations and providing potential cost advantages. This is not expected to impact the Group's future financial viability in the short, medium, or long term.

Timeframe:

Medium/Long Term

Effects on Business Model & Value Chain	At present, measures to reduce carbon emissions and contrails through the use of SAF and route optimisation are being implemented; however, the infrastructure for measuring and reporting the climate change impact of contrails is still in the development stage. Expanding the operational scope of SAF usage and increasing the availability of new-generation fuels with low aromatic content can contribute to reducing CO_2 and particulate matter emissions as well as decreasing the persistence of contrails. The use of meteorological analysis-based decision support systems for route optimisation will help enhance this impact. These developments will not only support the achievement of the 2050 Carbon Neutral target but will also provide benefits in terms of compliance with carbon regulations and long-term operational efficiency. In addition, in the event of increased SAF demand, there may be an indirect contribution to the development of local production capacity in Türkiye. SAF procurement, long-term agreements with local producers, and the promotion of diverse production technologies are emerging as key building blocks in achieving the Group's sustainability targets. (TSRS 2, 15b, 13a&b)
Current Financial Effects	The compliance and cost benefits of SAF use currently do not have a material impact on the Group's financial position, financial performance, or cash flows for the current reporting period. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	Due to scientific uncertainty and data gaps regarding the climate impacts of contrails, the financial value of this opportunity could not be quantified. As such, the analysis has been limited to a qualitative assessment. (TSRS 2, 15b)

Opportunities

OPPORTUNITY 2

Description:

Use of renewable energy and resource efficiency-focused infrastructure investments into operational processes is considered a strategic advantage that can support the Group's progress toward its sustainability goals, contributing to reducing energy and resource costs and carbon emissions. In line with Türkiye's National Energy Plan, increasing incentives for renewables and support for environmentally friendly technologies are facilitating this transition. Improvements in areas such as energy efficiency, water management, and waste reduction are expected to reduce environmental impact as well as enhance competitiveness and brand reputation in the global market. This is not expected to impact the Group's future financial viability in the short, medium, or long term.

Timeframe:

Short/Medium/Long Term

Effects on Business Model & Value Chain	The Group has taken concrete steps to increase the share of renewable energy in its energy supply by using I-RECs for electricity and planned solar energy projects. Additionally, new building and office projects are constructed with environmentally friendly materials and reduce operational costs by providing energy and resource efficiency. International green building certifications such as LEED are expected to reinforce the Group's corporate reputation in environmental responsibility. Expanding the use of renewable energy sources and scaling up investments in green-certified infrastructure will help build resilience against long-term fossil fuel price volatility, support financial sustainability, and facilitate compliance with Climate-related regulations. This integration is expected to optimize energy and resource consumption, improve operational efficiency, contribute to the Group's emission reduction targets, and create a foundation for sustainability-focused partnerships and investment opportunities. As a result, the Group is expected to strengthen both its international competitiveness and brand value among stakeholders in terms of environmental and economic sustainability. Resource efficiency measures, environmentally friendly infrastructure investments, and renewable energy projects enhance the Group's operational efficiency and reduce energy costs, contributing to financial sustainability. (TSRS S2, 15b, 13a&b)
Current Financial Effects	The integration of renewable energy use and resource-efficient infrastructure investments into operational processes has not had a significant impact on the Group in the current reporting year. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	The integration of renewable energy use and resource efficiency-focused infrastructure investments into operational processes is expected to have positive impacts for the Group in the short and medium term. Calculations indicate that the magnitude of these positive impacts will remain below the materiality threshold. (TSRS 2, 15b)

Opportunities

OPPORTUNITY 3

Description:

Sustainability-focused practices are considered to provide the Group with both reputational and competitive advantages. The voluntary carbon offset program, along with the use of next-generation aircraft and SAF, as well as the provision of sustainable products and services to passengers onboard, have the potential to strengthen the brand image through environmental responsibility while enhancing customer loyalty and attracting investor interest. These practices are not expected to impact the Group's future financial capacity in the short, medium, or long term.

Timeframe:

Short/Medium/Long Term

Effects on Business Model & Value Chain	The currently implemented CO_2mission program and other environmental and sustainability initiatives strengthen brand perception by positively impacting passenger satisfaction and are considered important drivers in increasing customer loyalty. In the long term, rising sustainability expectations and environment-focused policies will drive deeper transformations across the Group's business model, impacting the entire value chain from fuel sourcing to operational planning. Accordingly, the voluntary carbon offset program, next-generation aircraft, the use of SAF, and the sustainable in-flight products and services offered to passengers will enhance the Group's reputation permanently and are expected to expand strategic partnership opportunities with investors and stakeholders. These innovative approaches are expected to pave the way for fundamental changes in both operational and strategic planning, reinforcing the Group's long-term competitiveness. (TSRS 2, 15b, 13a&b)
Current Financial Effects	The reputational impact of sustainability-focused practices does not have a material effect on the Group's financial position, financial performance, or cash flows in the current reporting period. (TSRS 2, 15a, 16a)
Anticipated Financial Effects	This opportunity involves high measurement uncertainties, such as increases in customer loyalty, reputation gains, and investor interest. Therefore, direct or indirect financial impacts related to this opportunity have not been quantified; due to insufficient data and methodologies, the analysis has been limited to qualitative judgment. If realized, the opportunity is expected to positively affect Revenue in the Statement of Profit or Loss (notably Passenger and Cargo Revenues as presented in Note 25). (TSRS 2, 15b)

Business Strategy and Decision-Making

The Group considers climate change mitigation a key component of its business strategy and integrates Climate-related issues into its risk assessment, decision-making, and implementation processes accordingly. Adopting the climate targets set by the International Air Transport Association (IATA) for the aviation sector, the Group aligns these targets with its business strategies and continues to improve its performance in areas such as energy and emissions management, resource efficiency, fleet modernization, and sustainable aviation fuel. The Group's business strategies are further guided by Türkiye's ratification of the Paris Agreement, its commitment to achieving net-zero carbon emissions by 2053, the International Civil Aviation Organization's (ICAO) Long-Term Aspirational Goal (LTAG) for carbon emissions, as well as broader global developments and stakeholder expectations. Within this framework, the Group remains firmly committed to combating climate change and has pledged to become "Carbon Neutral" by 2050. (TSRS 2, 14)

Impacts of Resource Allocation and Business Model Transformation on Emission Reductions

The Group considers combating climate change a core element of its business strategy and integrates this perspective into its risk assessment, decision-making, and implementation processes. Acting in alignment with IATA and ICAO targets, the Company aims to become carbon neutral by 2050, taking into account Türkiye's 2053 net-zero commitment under the Paris Agreement. (TSRS 2, 14a)

Next-Generation Aircraft Investments

It constitutes one of the cornerstones of the sustainability strategy. In this regard, the target is to increase the proportion of new-generation aircraft to 41% by the end of 2025 and to 90% by 2033.

To support this goal, a purchase plan for approximately 600 aircraft covering the 2023-2033 period was announced. A total of 355 aircraft were ordered with Airbus, and an agreement was reached with Rolls-Royce, the sole engine supplier for 105 A350 aircraft in this order, for engine supply and engine maintenance services. Additionally, a purchase agreement was signed with Boeing for four B777F cargo aircraft in 2024. Considering the fleet size, the Group has one of the youngest aircraft fleets in the world, with an average age of 9.9 years as of the end of 2024. (TSRS 2, 14a(i))

As per the investment plan, a total of approximately USD27,691 million (TRY967,933) in investments is projected between 2024 and 2045 for 413 aircraft. As of the end of 2024, a prepayment of USD1,489 million (TRY52,549) has been made within this scope(2024, 12-Month Financial Statements, p. 58). The procurement of new aircraft has been supported by a "Sustainability-Linked Loan" model, implementing financing solutions aligned with environmental targets. (TSRS 2, 14a(i&ii), 14b, 29e)

Compared to earlier models, next-generation aircraft consume 15-20% less fuel, helping reduce environmental impact and generate cost advantages. This technological transformation is positioned as one of the Group's core strategies for emission reduction. (TSRS 2, 14a(ii&v))

Fuel Efficiency Practices

Through operational excellence efforts, improvements are carried out in areas such as flight planning, weight reduction, route optimization, technical procedures that reduce fuel use during take-off and landing, the use of lightweight materials, and digitalization in operational processes. Through these efforts, approximately 1.2 million tons of fuel savings and a corresponding significant emission reduction are targeted by 2033. (TSRS 2, 14a(ii&v))

Fuel efficiency initiatives constitute a fundamental pillar of the Group's strategy to combat climate change and reduce greenhouse gas emissions. In line with the short- and long-term targets set by IATA, various fuel efficiency parameters are continuously measured and monitored under a comprehensive fuel savings policy.

The Fuel Saving Committee, chaired by the CEO, reviews the action plans implemented within the framework of the Fuel Efficiency Program and monitors the processes. Fuel-saving practices are implemented under the headings of optimizing operations, investing in new technologies, and improving infrastructure. (TSRS 2, 14a(i&ii))

SAF Procurement

Further developments that will significantly contribute to the goal of becoming a carbon-neutral airline by 2050 include concrete steps, such as the long-term agreements planned to be signed with suppliers to facilitate the procurement processes of and secure access to SAF, which began to be used in 2022 and whose usage rate will gradually increase. As of 2024, analysis and planning efforts have been conducted for the establishment of a sustainable procurement portfolio. (TSRS 2, 14a(ii&iii&iv&v))

In 2023, with the aim of strengthening sectoral partnerships, the Türkiye Sustainable Aviation Platform was established with the participation of university, industry, and public stakeholders, in collaboration with Turkish Airlines, Boeing, and Istanbul Technical University. At the international level, the Global SAF Declaration, which represents a joint framework for decarbonizing sustainable aviation fuel, was signed with Airbus and Rolls-Royce.

Renewable Energy Use

To increase the use of renewable energy, rooftop solar energy (SPP) projects are being implemented, and high-efficiency, LEED-certified office buildings are utilized.

These investments serve the direct objectives of reducing emissions and lowering energy consumption. (TSRS 2, 14a(ii&v))

Carbon Offset Projects

As part of the CO_2mission program, a Voluntary Carbon Offset Program launched in 2022, the Company offsets emissions resulting from employees' business flights. (TSRS 2, 14a(i&ii))

To reduce indirect emissions, approximately 5.7 million kg of CO_2 have been offset to date under the CO_2mission program, which targets both individual and corporate customers. CO_2 emissions from flight operations will be offset under the CORSIA regulation implemented by ICAO. Additionally, plans to develop carbon emission reduction projects through various investment models are underway. (TSRS 2, 14.a(iii&v))

As no disclosure was made in the previous reporting period, no quantitative or qualitative information regarding progress on these plans has been provided. (TSRS 2, 14c)

These initiatives aim to ensure the effective implementation of the transition plan both within the Group and across the entire ecosystem. (TSRS 2, 14a(iii))

Effects on Financial Position, Financial Performance, and Cash Flows

Past volatility in the aviation sector indicates a continued likelihood of similar fluctuations in the coming years. Past volatility in the aviation sector indicates a continued likelihood of similar fluctuations in the coming years. This could result in substantial discrepancies between projections and actual outcomes, potentially leading users of financial and sustainability reports to make misguided decisions. Therefore, when assessing the effects of sustainability risks on the financial statement, the Group has excluded long-term impacts from the scope of its analysis.
The Group prepares its Cash Flow Statement in accordance with the TAS 7 Cash Flow Statements standard using the indirect method. According to this method, cash flows are generated based on net profit for the period. Therefore, all transactions affecting the “Profit for the Period from Continuing Operations” in the income statement will equally impact the Cash Flow Statement under the “Net Cash from Operating Activities” subsection.

Anticipated Financial Effects
Risks and opportunities are evaluated through a risk assessment approach to support the achievement of the intended outcomes of the Environmental Management System. In the sustainability-focused SWOT analysis, internal Climate-related strengths and weaknesses, as well as external risks and opportunities, are identified and analyzed in accordance with the Sustainability Risk and Opportunity Management Procedure. The financial impacts of risks and opportunities are accounted for directly during this analysis. When determining the severity of a risk, its potential impact on the Group’s financial position, financial performance, and cash flow is the primary criterion.

Impact levels are assessed based on the magnitude of their financial consequences. Risks that could result in a change of 5% or more in the Group’s relevant financial indicators are classified as having a very high impact; those exceeding 4% as high; those at approximately 3% as medium; and those of 2% or below as low impact.

Risks and opportunities identified in this assessment are presented to senior management and incorporated into decision-making processes with consideration of their financial implications. Accordingly, Climate-related risks and opportunities are directly integrated into the Group’s financial planning. (TSRS 2, 15b)

The financial planning implications of risks and opportunities identified in accordance with TSRS 2 are detailed in the table below.

Risk Number: TR1

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The use of SAF is not expected to have any impact on the book values of items on the statement of financial position in any period. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

The Group's strategy for managing this risk is based on investing in low-emission, fuel-efficient aircraft, reflecting its commitment to sustainability and operational excellence. The inclusion of next-generation aircraft in the fleet will directly impact the Group's capital assets and play a critical role in medium to long-term financial planning. Next-generation aircraft offer a 15% to 20% reduction in fuel consumption compared to previous models. This investment will help manage the financial impact of the risk by reducing fuel demand and, in turn, the need for SAF. In addition, next-generation aircraft are designed with enhanced cabin features aimed at improving passenger comfort, thereby increasing customer satisfaction and loyalty.

In 2024, despite global supply chain challenges and production bottlenecks in the aviation sector, the Group increased the size of its fleet, which is ranked among the youngest and most modern in the world, by 12% compared to the same period of the previous year, reaching a total of 492 aircraft (2024 12 Months Financial Statements, p.5). By redesigning the cabins of newly added aircraft, the Company aims to reduce costs and support its goal of becoming a more sustainable airline, achieving this by increasing the number of seats per aircraft and reducing total aircraft weight without compromising passenger comfort. In 2024, fuel-efficient next-generation aircraft made up 34% of the Group's fleet, and this share is targeted to reach at least 90% by 2033 (2024 12 Months Financial Statements, p.17). Between 2024 and 2045, the Group will purchase a total of 413 aircraft, including 288 firm orders and 125 options, with a total list price of approximately USD27,691 million (TRY967,933). As of December 31, 2024, the Group had made gross prepayments totaling USD1,489 million (TRY52,549) to the respective manufacturers for the aircraft purchases (December 31, 2023: USD868 million (TRY25,544)) (2024 12 Months Financial Statements, p.58).

The Company's current debt portfolio consists of various financing instruments, including export credit-backed, insurance-backed, and commercial loan-based financial lease transactions in five different currencies, as well as collateralized capital market instruments (2024 12 Months Financial Statements p.30).

While fuel consumption and therefore the need for SAF are being reduced through next-generation aircraft investments, strategic planning efforts are also being conducted to manage the risk. In 2024, the Group carried out a project to define its short, medium and long-term SAF strategy. In this project, a SAF portfolio was developed based on the Group's growth strategies, addressing investment and offtake options for future SAF demand. The Group is also taking strategic steps to diversify supply agreements, establish long-term partnerships and develop alternative fuel solutions. In this context:

- By obtaining SAF compliance certificates from suppliers, the aim is to claim environmental benefits under mechanisms such as CORSIA, EU ETS, and UK ETS.
- There is a goal to manage SAF cost volatility and improve financial predictability through long-term supply agreements and strategic partnerships.
- Efforts focused on operational efficiency and alternative fuel strategies will help optimize the costs imposed by SAF-related regulations. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As explained under the Anticipated Financial Effects of the risk, the estimated cost of SAF has been analyzed under two separate scenarios minimum and maximum within the scope of regulations. Under the same analysis framework, in the scenario where the minimum price is assumed, the related risk is not expected to have a material impact on the financial position, performance or cash flow in the short and medium term. In the maximum price scenario, no impact is anticipated on the financial position or cash flow. Based on these core findings, analyses conducted under the assumption of the maximum estimated SAF price indicate that, while no short-term impact on financial performance is expected, a "High/Material" risk may emerge in the medium term. If this risk materializes, it is likely to result in an increase in the cost of goods sold on the statement of profit or loss, particularly in relation to fuel costs as disclosed in Notes 22 and 26 of the Financial Statements. Additionally, accounting for key mitigation measures such as improved efficiency, adjustments in ticket prices and associated changes in demand, there may be a potential impact on revenue. In this context, based on the combined effects of these factors, a decrease of approximately 3% is projected in "Profit for the Period from Continuing Operations" in the medium term. (TSRS 2, 16d)

Risk Number: TR2

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

Due to the implementation of carbon pricing regulations by the Group, there is a possibility of an increase in the “Tangible Fixed Assets” and “Intangible Fixed Assets” items on the statement of financial position. No adjustment to non-current assets is required in the current reporting period. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

The Group closely monitors international and regional developments to adapt to new regulations and shapes its operational and strategic plans accordingly. It complies with international standards and provides input on relevant platforms to help prevent overlapping obligations between national regulations and global systems. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the anticipated financial effect of the risk, there is significant uncertainty regarding the effects on the financial statements due to supply and demand-side uncertainties in CORSIA-compliant projects planned to be implemented by 2035 (particularly the demand volatility stemming from airlines’ emission reduction strategies).

In this context, the Group has chosen not to disclose the potential effects of the regulation due to the high level of uncertainty in the current period. Additionally, since the related cost item is not present in the current reporting period, there is no direct counterpart in the statement of financial position or the statement of profit or loss. If payments are made to third-party CORSIA-compliant projects, this would result in an increase under the “Cost of Sales” item in the Statement of Profit or Loss (Note 22 – Expenses by Nature and Note 26 – Cost of Sales in the 2024 12 Months Financial Statements). In addition, if these projects are carried out directly by the Group, an increase is expected in the “Tangible Assets” items. (TSRS 2, 16d)

Risk Number: TR3

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The risk of an increase in carbon credit prices is not expected to have any impact on the book values of items on the statement of financial position in any period. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

The Group is implementing comprehensive strategies to effectively manage credit risks it may face under CORSIA and to minimize regulatory uncertainties. These strategies aim to support environmental sustainability while ensuring long-term cost control. By investing in SAF and in next-generation aircraft with low emissions and high fuel efficiency, the Group is reducing its carbon emissions and, in turn, its need for carbon credits. The Group also closely monitors developments in the carbon markets and aims to secure access to affordable, high-quality carbon credits. It is evaluating a hedging strategy against uncertainties in the supply-demand balance of the carbon credit market through financial risk management and portfolio diversification. To comply with regulatory changes, the Group updates its operational and strategic plans by following international and regional developments, thereby ensuring full compliance with CORSIA and other carbon regulations. This approach will help mitigate the impact of rising carbon credit prices and future price fluctuations. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the anticipated financial effect of the risk, there is significant uncertainty regarding the price of carbon credits required to be purchased under national and international regulations and the CORSIA framework, particularly on the supply and demand side. Therefore, under current conditions, the net impact of the related risk on the financial statements cannot be disclosed.

In addition, in parallel with TR 2 practices, an increase is expected in the “Cost of Sales” item in the Statement of Profit or Loss and in the “Tangible and Intangible Fixed Assets” items if the projects are carried out by the Group. (TSRS 2, 16d)

Risk Number: TR4

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The additional taxation risk that may be imposed on conventional jet fuel due to climate policies is not expected to have any impact on the book values of items on the balance sheet. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

No consensus has yet been reached by the relevant authorities regarding political and legal regulations for the taxation of conventional jet fuel. Operational and strategic plans are being shaped by closely monitoring international and regional developments to comply with new regulations. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the projected financial impact of the risk, the financial impact of potential taxes on conventional jet fuels due to climate risks remains below the materiality threshold due to the limited scope of current legal regulations. Similarly, since there is currently no specific tax in place or a defined measure to be analyzed, this impact has not been calculated at this stage.

If such taxes are enacted in future periods, an increase is expected in the “Cost of Sales” item in the Statement of Profit or Loss (Note 22 – Expenses by Nature and Note 26 – Fuel Expenses). (TSRS 2, 16d)

Risk Number: PR1

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The risk of increased fuel consumption in aircraft due to changes in average atmospheric temperature is not expected to have any impact on the book values in the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

Fuel policy-related efforts are being carried out within the Group, fuel consumption is monitored, and strategies are being developed to reduce consumption. In addition, a flight planning software application that uses advanced data analytics to dynamically optimize flight routes both during planning and after aircraft take-off is integrated into the Company's flight planning system. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the anticipated financial effect of the risk, physical climate risks have been analyzed based on the SSP1-2.6 (optimistic) and SSP5-8.5 (pessimistic) scenarios, and it has been determined that the impacts of these risks on financial position, performance, and cash flow in the short and medium term remain below the materiality threshold.

However, if these risks exceed the materiality threshold, an increase is expected in the "Cost of Sales" item in the Statement of Profit or Loss (Note 22 – Expenses by Nature and Note 26 – Fuel Expenses). (TSRS 2, 16d)

Risk Number: PR2

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The risk of increasing frequency and severity of extreme weather events is not expected to have any impact on the book values in the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

A comprehensive forecast and analysis of general weather conditions, which is highly important for Istanbul Airport, is carried out by the Company Operations Center. Efforts are ongoing to establish an automated forecasting system, developed by our relevant units, that provides alerts for short-term weather events.

The use of technology to enhance the management of extreme weather events and to expand mitigation and response capabilities is continuously evaluated and updated. In addition, the training and qualifications provided to flight crews cover both the climate conditions at Istanbul Airport as well as meteorological events across the destinations in the Company's flight network.

Participation is ensured in Meteorological Emergency meetings held ahead of the heavy snowfall season. In these meetings, which are attended by Company operations representatives and officials from the General Directorate of Meteorology, topics such as preparation procedures, adjustment of flight and time slots based on storm and precipitation periods, and identification of alternate airports are regularly discussed.

Prior to severe weather events, the Company Operations Center issues warning messages to all relevant units and airports, including the severity, scope, and duration of the event, along with potential impacts and additional precautionary measures.

The implementation of flight planning software that uses advanced data analytics to dynamically optimize flight routes both during planning and after aircraft take-off has been integrated into the flight plan system. Analyses are conducted through the Enhanced Weather Awareness Solution (eWAS) system, which has been procured to support weather monitoring. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the anticipated financial effect of the risk, the relevant physical climate risk has been analyzed according to the IPCC's SSP1-2.6 (optimistic) and SSP5-8.5 (pessimistic) scenarios, and it has been assessed that this risk does not have an impact on financial position, financial performance, or cash flow in the short and medium term.

As explained under the projected impact, if the risk exceeds the materiality threshold, effects are expected in the Cost of Sales (Note 22 – Expenses by Nature; Note 26 – Maintenance Expenses) and Revenue (Note 25 – Passenger and Cargo Revenues) items in the Statement of Profit or Loss. (TSRS 2, 16d)

Risk Number: PR3

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The risk of payload loss in aircraft due to increasing extreme temperatures is not expected to have any impact on the book values in the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

As part of fuel savings and weight reduction efforts, flight route optimization programs are prepared in integration with the Company's flight planning system, based on the destinations flown. Operational plans are prepared for airports where air temperature forecasts may lead to SUBLO (subject to load) restrictions. Aircraft weight reduction and fuel saving practices are among the core components of the Group's climate change mitigation and greenhouse gas emission reduction strategy. Cabin modification projects aim to reduce the total aircraft weight. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the projected impact of the risk, the relevant physical climate risk has been analyzed based on the SSP1-2.6 (optimistic) and SSP5-8.5 (pessimistic) scenarios, and it has been assessed that this risk does not have a material impact on financial position, performance, or cash flow in the short and medium term. However, as stated under the projected financial impact, if the risk exceeds the materiality threshold, an impact is expected in the Revenue item (Note 25 – Passenger and Cargo Revenues) in the Statement of Profit or Loss. (TSRS 2, 16d)

Risk Number: PR4

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The risk of increased additional cooling needs such as GPU or APU due to the average temperature increase of parked aircraft is not expected to have an impact on the carrying amounts of the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

Currently, there is no need for improvements in the fleet's ventilation systems. Fault tracking and failure analyses are conducted across the fleet for both the systems and their components, and corrective or improvement actions are taken if necessary.

In addition, necessary procedures related to resource efficiency in the context of APU/GPU operations are being followed. The possibility that increasing the use of air conditioning via passenger boarding bridges (PBBs) could reduce costs is being evaluated, and relevant initiatives have been launched. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

As stated under the projected impact of the risk, the relevant physical climate risk has been assessed by accounting for the SSP1-2.6 (optimistic) and SSP5-8.5 (pessimistic) scenarios, and it has been determined that there is no material impact on the financial statements in the short and medium term.

However, if the risk exceeds the materiality threshold, an increase is expected in the Cost of Sales item in the Statement of Profit or Loss (Note 22 – Expenses by Nature; Note 26 – Ground Services Expenses). (TSRS 2, 16d)

Opportunity 1

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The opportunity related to the use of Sustainable Aviation Fuel (SAF) is not expected to have any impact on the book values in the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

With the inclusion of non-CO_2 emissions under the EU ETS, the Group has initiated efforts to monitor non-CO_2 emissions internally. Work and research in this area are being closely followed to implement measures aimed at reducing the potential impacts of these emissions in the coming periods. In the coming years, the Company aims to support domestic producers and products through Sustainable Aviation Fuel supply agreements, in order to support alternative production technologies and SAF production in Türkiye. In 2024, the Group carried out a project to define its short-, medium-, and long-term SAF strategy. As part of this project, a SAF portfolio was developed based on the Group's growth strategies, covering investment and offtake options to meet SAF demand. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

The short and medium-term impacts of a reduction in the climate impact of flight operations on financial statements cannot be analyzed reliably due to high uncertainty. While existing scientific studies (ECLIF2, ICAO LTAG SAF Technical Report, etc.) provide some findings on the effects of SAF use on contrail formation and its climatic impacts, direct measurement of these effects is not possible. Impact assessments are conducted using sophisticated climate and contrail models, and because these models involve a high degree of uncertainty, the reliability of quantitative estimates is limited. Therefore, a quantitative assessment of the impact of this opportunity on financial statements has not been conducted. (TSRS 2, 21a&b)

Opportunity 2

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The use of renewable energy and resource efficiency is not expected to have an impact on the book values in the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

The Group has prioritized strategic infrastructure investments aimed at increasing the use of renewable energy in line with its goals to reduce carbon emissions and optimize energy costs. Within this scope, a total investment of USD3 million (TRY105,840,900) is being made in solar power plant (SPP) projects, which are expected to reduce annual emissions by 4,558.7 tCO_2. As of 2025, a total of 5,476.45 kWp of energy will be generated (4,365.45 kWp at the AHL Cargo Building and 1,111 kWp at the Sedat Şekerci Campus) and approximately 50% of the AHL Region's electricity demand will be met from these sources. As of 2027, the installation of a 504.45 kWp capacity solar power plant (SPP) on the grounds of the TAFA Aydın Çıldır Facility is expected to prevent 429.1 kg/year of CO_2 emissions.

Electricity unit price forecasts were made using sources such as Statista and the International Energy Agency's World Energy Outlook 2024 Report, and based on these projections, the short, medium, and long-term cost advantages of the SPP investments were analyzed. The financial returns of these investments are evaluated together with the energy savings and reductions in carbon emissions, which strongly aligns the projects with the Group's long-term value creation strategies.

In the future, high environmental impact and inefficient infrastructure is planned to be gradually phased out and replaced with systems equipped with sustainable technologies. In this way, the Group will not only reduce environmental risks but also become a more attractive partner for climate-focused collaborations and investment opportunities. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

The integration of infrastructure investments focused on renewable energy use and resource efficiency into operational processes is expected to generate positive impacts for the Group in the short and medium term. Calculations indicate that these positive impacts will remain below the materiality threshold. (TSRS 2, 16d)

Opportunity 3

Climate Risks with the Potential to Trigger Significant Adjustments in Book Values

The opportunity related to sustainability-focused practices is not expected to have an impact on the book values in the financial statements. (TSRS 2, 16a&b)

Investment, Divestment, and Financing Plans Aligned with the Climate Strategy

As part of managing this opportunity, specific investment plans have been initiated in line with the Group's sustainability targets. In particular, the inclusion of next-generation low-emission aircraft in the fleet and infrastructure investments for SAF use are being planned to create a long-term competitive advantage.

In addition, investments in digital infrastructure and communication technologies are also being considered to expand the scope of the voluntary carbon offset program, CO_2mission. With the awareness that collaboration with customers is essential in the fight against climate change, the Group has developed the Corporate SAF Program for its corporate customers. By contributing to the purchase of SAF, the Group's corporate customers can reduce their Scope 3 emissions from business travel and cargo transportation, and report this reduction. Although transportation activities are carried out by the Company, these emissions can be excluded from total Scope 3 emissions since they originate from activities within the customers' value chains that they do not directly control. SAF is used to enable this reduction, and the cost is shared with the customer.

Additionally, the voluntary carbon offset program CO_2mission was launched on August 1, 2022. Additionally, the voluntary carbon offset program CO_2mission was launched on August 1, 2022. CO_2mission is a voluntary carbon offset platform that allows passengers to offset emissions from their flights. Passengers can calculate the carbon footprint of their flights through CO_2mission and offset it by supporting various sustainable development projects. The carbon footprint calculation software is designed to deliver the most accurate results by considering factors such as flight distance, aircraft type, load factor, travel class, and fuel consumption. Currently, passengers are redirected to the CO_2mission website after completing their ticketing process, where CO_2 emissions are automatically calculated based on their flight details. A separate option under the CO_2mission program is planned specifically for our corporate customers. Through this enhancement, corporate customers will also be able to offset emissions from their flights and will be redirected to the CO_2mission platform via the Turkish Airlines Corporate Club website. It is planned that emissions from corporate customer flights will be automatically calculated and offset through CO_2mission. (TSRS 2, 16c&d)

Changes in Financial Performance and Cash Flows in the Short, Medium and Long Term

Quantifying a potential increase in brand value and competitive advantage is not possible due to the high degree of subjectivity involved. An increase in brand value is expected to impact Revenue in the Statement of Profit or Loss (Note 25 – Passenger and Cargo Revenues in the Revenue table). Since the financial effects of increased customer loyalty, improved reputation, and investor interest involve high measurement uncertainty, and due to the inability to quantitatively calculate direct or indirect financial returns related to this opportunity and the inadequacy of existing data and methodologies for determining a monetary amount, the analysis has been limited to qualitative judgment. (TSRS 2, 21a&b)

Climate Resilience

The Group addresses Climate-related risks and opportunities through its sustainability management mechanisms to identify, assess, manage, and respond to these factors. In this context, the Company's Sustainability Committee, which is chaired by the CEO, plays a leading role in setting the Group's sustainability strategies and targets and is also responsible for assessing sustainability and Climate-related risks and opportunities. The Committee is also responsible for planning actions related to climate risks and for ensuring that the management of Climate-related risks and opportunities is integrated into the Company's sustainability strategy. The Committee operates within a multidisciplinary structure composed of representatives from different departments, and its decisions are reported regularly to the Board of Directors. Climate-related risks and opportunities in the short, medium, and long term are assessed at least once a year across the Group's entire value chain. (TSRS 2, 22a(i), 25c)

Areas of Uncertainty Considered in the Climate Resilience Assessment

The scenario analysis conducted by the Group to assess Climate-related risks and opportunities enables the organization to evaluate its resilience to climate change. The scope of the analysis used to assess climate resilience covers a range between two extremes: scenarios that align with the Paris Agreement and limit global temperature rise to 1.5°C (e.g., IEA NZE 2050, SSP1-2.6), and scenarios where the temperature rise cannot be limited to 2°C and reaches 3 to 4°C or more (e.g., IEA STEPS, SSP5-8.5).

Optimistic scenarios aligned with the Paris Agreement assume a shift toward a carbon-neutral future, a transition to renewable energy, and the rapid phase-out of fossil fuels.

The steps to be taken and actions required to realize these projections form the foundation of the Group's long-term strategies. However, following this pathway depends on governments strictly enforcing carbon pricing policies and enacting appropriate regulations that compel companies to abandon fossil fuel-based operations and transition to clean energy. Nevertheless, uncertainty in compliance with climate policies and environmental regulations may affect the Company's future profitability and cost structure, thereby challenging its resilience. Therefore, pessimistic scenario projections involving higher temperature increases have also been considered within the analysis, and the measures and actions the Group could take in response to such developments have been incorporated into strategic planning. For example, weak Climate-related regulations could allow carbon-intensive activities to continue as usual, potentially accelerating the increase in emissions. Severe atmospheric conditions that pose critical physical risks may, over time, act as a trigger for stricter carbon pricing and regulations. This could lead the business to face significant costs and financial uncertainty.

To mitigate such risks, it is important that the Group considers all possible scenarios in its assessments.

Incorporating different climate scenarios into the risk assessment process strengthens the Group's business strategies against future uncertainties. By analyzing potential impacts across short, medium and long-term timeframes and identifying strategically significant risks, necessary measures are taken. This approach ensures the resilience and continuity of the business strategy through effective risk management. (TSRS 2, 22a(ii), 25b)

Adaptability of the Business Model

The Company's Board-approved financial risk management and fund management strategies are primarily aimed at ensuring cash flow to maintain operational continuity. In this context, a certain amount of financial resources is intended to be kept readily available at all times, following a prudent approach that also accounts for the risks of the aviation sector and past crises. These resources are managed under a separate and dedicated portfolio and are invested in short-term, highly liquid financial instruments, ensuring constant accessibility. These funds may also be used to meet the Group's needs, including those identified through Climate-related scenario analysis.

In addition to its own equity, the Group can secure financing from domestic and international financial institutions. Due to its deep-rooted history and its competitive and reputable position in the global aviation market, the Group enjoys strong creditworthiness with both domestic and international banks, allowing it to access substantial external funding quickly and at favorable costs. Examples of such funding sources include commercial loans, project financing, bond issuances, syndicated loans, and securitization transactions. The selection among these alternatives is primarily guided by cost efficiency and the extent of associated procedures.

As the role of the aviation sector in global carbon emissions comes under increasing scrutiny, the Group shapes its actions with a sense of environmental responsibility, considering not only today but also future generations.

As part of its 2033 Strategy, the Group's core sustainability goals include progressing toward becoming a carbon-neutral airline and improving its sustainability performance score in the S&P Global Sustainability Assessment. To achieve these goals, the Company has set targets and

has developed a detailed plan for how it will meet them. As part of the carbon-neutral airline objective, key priorities include phasing out existing high-impact assets, replacing them with models featuring more efficient technologies, and continuously optimizing the fleet in line with climate goals. Under the strategic fleet plan for the 2023–2033 period, the Group is updating its plans with the goal of having 90% of its fleet composed of next-generation aircraft.

The current fleet composition is continuously assessed based on fuel consumption and emissions performance. The planned fleet size for the coming years is revised in line with demand and operational efficiency analyses; in scenarios where growth exceeds expectations, the phased retirement of older-generation aircraft is also considered. In this way, the Group not only utilizes its existing assets but also demonstrates, at a strategic level, its ability to redeploy them and implement technological transformation in line with environmental goals.

The adaptation process began primarily with fleet transformation. By incorporating next-generation aircraft with low fuel consumption and emission levels into the fleet, operational efficiency has been improved while significantly reducing the carbon footprint. Fuel savings achieved with models such as the B787 Dreamliner and A350, which are currently being delivered for short, medium, and long-term use, directly contribute to reducing the environmental impact of long-haul flights. Fuel efficiency projects also stand out as one of the core components of the Group's sustainability strategy. Through route optimization in flight planning, technical procedures that reduce fuel use during take-off and landing, the use of lightweight materials, and digitalization in operational processes, fuel consumption is reduced, leading to a direct decrease in carbon emissions.

Organizational awareness and training programs are also being implemented to align with strategic targets. It is critically important for employees to act with a sustainability mindset to ensure that all processes are managed with climate sensitivity. To this end, sustainability KPIs are integrated into managerial performance evaluations, helping to establish a shared awareness of climate goals across the Company.

The Group's approach in this area goes beyond regulatory compliance or responding to global trends; it reflects a vision of playing a leading role in the transformation of the aviation sector. Consistently emphasizing its commitment to the 2033 targets, the Group takes concrete steps in the fight against climate change, fulfilling its environmental, economic, and social responsibilities with determination.

In line with its goal of becoming carbon neutral by 2050, the Company prioritizes investments focused on climate mitigation and enhancing climate resilience. As in many industries, sustainability efforts, which are an area to which airlines are increasingly allocating resources, are of critical importance for aviation and occupy a significant place in the Group's future vision. To this end, as the Group expands its fleet with next-generation aircraft under its 2033 targets, the share of next-generation aircraft, defined as those made from composite materials and equipped with fuel-efficient engines, has risen to 34% as of the end of 2024. With new aircraft to be delivered in 2025, the fleet is expected to surpass 520 aircraft, with the share of next-generation aircraft planned to exceed 41%.

As of 2022, the use of sustainable aviation fuel was initiated on select European routes, and the plan is to expand SAF use with increasing frequency and to a growing number of destinations. Beyond using SAF, the Group is also developing partnerships to help increase the production and availability of SAF, which remains extremely limited worldwide.

In addition, through the voluntary carbon offset program CO_2mission, approximately 5.7 million kg of CO_2 emissions were offset between August 2022 and the end of 2024. Under CO_2mission, emissions from all duty-related flights taken by employees are offset by Turkish Airlines. In this context, the Company offset the emissions from its employees' 2024 business travel by purchasing 7,100 carbon credits. Under the 2024 EU-ETS, 8,383 metric tons of CO_2 emissions were verified, along with 4,194 metric tons of CO_2 under the UK-ETS, and a total of 12,557 allowances (EUA, UKA) were submitted to the relevant authorities.

Through next-generation aircraft investments, SAF use, and offsetting practices, emissions are being reduced in the short, medium, and long term, while a climate-resilient business model is being built. (TSRS 2, 22a(iii))

Analysis of Global Climate Scenarios

The Group uses scenario analysis as a primary tool to understand global climate change and its impacts on business strategies, and it reviews the sources and outcomes of the scenarios it uses on an annual basis. (TSRS 2, 22b(i), 25b))

(1) Although global and macro-level scenarios do not provide definitive outcomes, they offer projections regarding climate scenarios. In this context, the scenarios used include those aligned with a 1.5°C world under the Paris Agreement (such as NZE, SSP1-2.6) as well as scenarios projecting higher temperature increases where the 2°C target is not met (such as STEPS, SSP5-8.5).

(2) Various scenarios presented by aviation-related regulations are utilized in addition to widely used scenarios such as NZE, STEPS, and APS, which are included in the World Energy Outlook (WEO), which is frequently referenced in scenario analysis, and SSP scenarios provided by the IPCC.

(3) These scenarios can provide projections regarding the transition and physical risks that the Group is expected to face in the future. Therefore, the assumptions of globally developed scenarios offer a basis for forecasting the risks and opportunities identified by the Group.

(4) In addition, using these assumptions facilitates the analysis of future climate change risks and opportunities, thereby enhancing the resilience of the strategy.

(5) The global scenarios used for the Group's long-term strategies provide not only short and medium-term projections but also long-term forecasts extending to 2050 and 2060.

(6) The Group's Sustainability Risk and Opportunity Management Procedure is structured to cover the Group's upstream, downstream, and direct operations across short, medium, and long-term timeframes. Under this procedure, Climate-related physical and transition risks, along with the related opportunities, are systematically identified, assessed, and monitored. In this context, information on risks and opportunities is regularly reviewed and updated by the relevant units in line with assigned responsibilities. The procedure is subject to re-evaluation at regular intervals, at least once per year.

The scenario analyses in question have been reviewed based on current sources and evaluated for the reporting year from January 1, 2024 to December 31, 2024.

Scenario Analyses

Information on the scope and boundaries of Climate-related risk and opportunity scenario analyses is presented in the tables below. (TSRS 2, 22b(ii))

Table 1: Policies and Regulations

Policy

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Carbon Regulation

Carbon pricing may be implemented in developed economies, as well as in emerging economies such as China, India, Indonesia, and South Africa.

- In developed countries with net-zero commitments, CO_2 prices rise rapidly, while in other developing countries the increase is more moderate. In the lowest-income regions, CO_2 reductions are achieved through directly implemented policies.

This includes existing and planned carbon pricing initiatives (Canada, Chile & Colombia, China, EU, South Korea).

- While market-based mechanisms continue to expand, carbon taxes and other non-market mechanisms may remain stable, increasing only as previously planned.

Quantitative Metrics

Carbon price per metric ton (USD) according to the NZE Scenario:

	1	2	3
2030	140	90	25
2040	205	160	85
2050	250	200	180

1: Developed economies with net-zero commitments (all OECD countries except Mexico)

2: Emerging markets and developing economies with net-zero commitments (China, India, Indonesia, Brazil, South Africa)

3: Selected emerging markets and developing economies excluding OECD countries, including developing Asia and Sub-Saharan Africa

According to the STEPS scenario, by 2050 the carbon price under the EU Emissions Trading System (EU ETS) for electricity, industry, and energy production is projected to be just under USD160 per metric ton of CO_2.

	EU	Canada	South Korea
2030	140	126	56
2040	149	126	73
2050	158	126	89

Year / Data	1,5°C (<2°C)			> 4°C		
	IEA (NZE)	SSP	NGFS	IEA (STEPS)	SSP	NGFS
2030	90	146.15	85.8	140	18.90	0.5
2040	160	103.42	244.1	149	24.85	48.9
2050	200	137.18	802.7	158	39.64	60.4
Region	Emerging Markets	Global	Global	European Union	Global	Global
Unit	US$(2023)/t	US$(2010)/t		US$(2023)/t	US$(2010)/t	

Sources

- IEA WEO, 2024 & IEA GEC Model 2024, Table 2.4
- IIASA SSPs (AIM Hub Model & GCAM Model)

Policy

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Energy Policies

The number of developed and developing countries pledging net zero commitments to limit temperature rise is increasing, and the clean energy transition is accelerating.

- According to the State of Energy Policy report, as of September 2024, the EU and 98 countries have pledged to achieve carbon neutrality. These commitments cover approximately 87% of global energy-related CO_2 emissions.
- Although clean energy investments may initially appear daunting, strong policies and regulations will enhance both the scale and quality of these investments when supported by private sector participation.
- Investments backed by clean energy policies typically have lower operating costs than fossil fuel-based facilities and are not exposed to the high volatility of fuel prices. This can provide major long-term energy and economic security gains, especially for economies highly dependent on fuel imports.

The IEA Climate Pledges Explorer has indicated that current Nationally Determined Contributions (NDCs) fall short of the level needed to meet long-term climate goals. Updated NDCs are expected to be announced in 2025.

- Since 2023, 35 countries representing one-fifth of CO_2 emissions in the energy sector have implemented new energy regulations, such as the latest fuel efficiency standards for vehicles and regulations for fossil fuel power plants in the United States.
- New trade measures that are focused on clean energy technologies have been enacted to strengthen domestic production and diversify global supply chains.
- Tariff reductions implemented in Asia-Pacific countries such as China, India, Malaysia, and the Philippines have also been applied in Argentina and Egypt.

Quantitative Metrics

New commitments made in 2023:

Switzerland	Climate and Innovation Act	2050
Ethiopia & Georgia	Long-Term Low Emission Development Strategies	2050
Ghana	Energy Transition nvestment Plan	2060
Uganda	Energy Transition Plan	2065

The largest increase in net-zero commitments has occurred in Europe. With Türkiye's 2053 net zero target, the share of emissions covered by net zero commitments in this region has risen to 95%.

According to current action plans, by 2030 global greenhouse gas emissions compared to 2019:

Reduction required for a 1.5°C-aligned world	43%
Reduction projected under current policies	2.6%

Sources

- IEA WEO, 2024
- UN Climate Action

Policy

World aligned with the Paris Agreement (<2°C)

Aviation Sector–Specific Policies

Regulations and policies concerning aircraft fuels will play a key role in reducing aviation emissions globally and advancing the net-zero trajectory.

- The NZE Scenario assumes that emissions from the aviation sector will reach net zero by 2050 under the guidance of the IATA Net Zero Initiative, ICAO Long-Term Aspirational Goal, and CORSIA.
- Measures and mechanisms available to support the aviation sector's net-zero target include carbon offsetting and capture methods, the use of renewable energy, SAF, operational improvements, and technological advancements.

The European Union's ReFuelEU Aviation regulation, part of the Fit for 55 package, is based on reducing EU-wide greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels.

- This regulation requires fuel suppliers to blend increasing amounts of sustainable aviation fuels (SAF), including synthetic low-carbon fuels known as e-fuels or PtL, into jet fuel supplied at EU airports.

Quantitative Metrics

Ratios of SAF blending and shares of synthetic fuel within SAF for ReFuelEU compliance:

	SAF	Synthetic Fuel
2030	6%	1.2%
2040	34%	10%
2050	70%	35%

World where temperature rise cannot be limited (>4°C)

Reducing the negative impacts of aviation fuels requires specific actions, and many countries may face both administrative and financial challenges during the transition to these practices.

- The Alternative Fuels Infrastructure Regulation (AFIR) mandates that aircraft must have access to clean electricity supply and requires EU member states to develop national policy frameworks to support market development of alternative fuels and related infrastructure.
- Some of the targets introduced under AFIR that are related to fuel types include an electricity target for vehicles (one charging point for approximately every ten electric vehicles), a CNG target (Compressed Natural Gas, an alternative with lower emissions than conventional petroleum products used in internal combustion engines), an LNG target for vehicles, and a hydrogen target.

Not available.

Policy

World aligned with the Paris Agreement (<2°C)

Quantitative Metrics

While Norway, Sweden, and France have imposed SAF usage mandates in recent years, the SAF obligations in Sweden and France have been aligned with ReFuelEU Aviation following the implementation of Fit for 55.

	Implementation	Planning
Norway	2020: 0.5%	2030: 30%
Sweden	2021: 0.8%	2025: 2% (ReFuelEU)
France	2022: 1.0%	2025; %2 (ReFuelEU)

In the United Kingdom, under a regulation expected to come into effect by 2025, approximately 2% of jet fuel demand is projected to be met with SAF. This share is planned to increase to 10% by 2030 and to 22% by 2040.

World where temperature rise cannot be limited (>4°C)

Not available.

Sources

- European Commission, Fit for 55 (ReFuelEU Aviation)
- IATA RefuelEU Aviation Handbook 2024 v1
- ICAO Special Supplement Long Term Aspirational Goal (LTAG)
- GOV. UK Sustainable Aviation Fuel (SAF) Mandate

Table 2: Macroeconomic Trends

Economy

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Economic Growth	
According to the SSP1 scenario, the scenario is characterized by rapid technological change and high levels of international cooperation. Population is projected to be low, and emission levels are also expected to remain low. In this scenario, income growth is high.	According to the SSP5 scenario, the scenario is focused on economic development and remains dependent on fossil fuels. Population is low, emission levels are high, and adaptation challenges are minimal. In this scenario, income growth is high.
Quantitative Metrics	
The global Gross Domestic Product (GDP) based on Purchasing Power Parity (PPP) was USD124 trillion in 2020 (based on 2017 PPP) and is expected to increase by an average of: • 40.43% by 2030, and • 146.72% by 2050.	The global GDP based on PPP was USD124 trillion in 2020 (based on 2017 PPP) and is expected to increase by an average of: • 40.82% by 2030, and • 184.78% by 2050.
Sources	
• IIASA SSP Scenario Explorer 3.1.0	

Economy

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Carbon Pricing	
According to World Bank data (2024b), there are currently 75 carbon pricing instruments in force, covering approximately 50 countries and 40 subnational jurisdictions.	High-temperature scenarios project lower carbon prices for regions with net-zero commitments. • There is no specific pricing in place for Sub-Saharan regions (except South Africa) and developing Asian countries.
Quantitative Metrics	
In 2023, global carbon pricing revenues increased by 7% compared to 2022 levels, reaching approximately USD105 billion. *Note: The 2023 carbon prices per metric ton projected under the Net Zero scenario of the World Energy Outlook (2024) report for the electricity, industry, and energy production sectors are provided in Table 1.*	According to the STEPS scenario, the carbon price is lower in countries such as China and Chile. *Note: The 2023 carbon prices per metric ton projected by the WEO (2024) report under the STEPS scenario for other regions (EU, Canada, South Korea) are provided in Table 1.*
Sources	
IEA WEO, 2024	

	China	Chile & Colombia
2030	39	21
2040	46	28
2050	52	28

Economy

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Carbon Credits

Carbon offsetting plays a critical role in helping the aviation sector reach its net-zero carbon target. Therefore, decision-making bodies such as ICAO establish key criteria for emission reductions and carbon offsetting through initiatives and regulations (e.g., CORSIA) aimed at reducing emissions from international aviation. These create both enforcement mechanisms and incentives for all actors in the aviation sector. These credits contribute to the global effort to limit temperature rise to 1.5°C.

High temperature rise scenarios project that carbon credits will be in demand if energy transition policies and technological improvements progress slowly and global emissions cannot be sufficiently curbed. They also suggest that the slowness and inadequacy of global carbon pricing mechanisms could further increase the importance and relevance of carbon credits as a means of offsetting emissions.

Quantitative Metrics

CORSIA projections for carbon credits*		
1,5°C	Low-emission scenario	50 million EEUs
< 3°C	Medium-emission scenario	100 million EEUs
> 4°C	High-emission scenario	230 million EEUs

EEUs (Eligible Emissions Units)
CORSIA Pilot Phase (2021–2023),
Phase I (2024–2026),
Phase II (2027–2035)

**These projections are based on Phase I.*

Projections for the global carbon credit market and transaction volume:

2021	2 billion	USD	298.4 $MtCO_2e$
2022	978.56 billion	USD	13.22 Gt CO_2e
2028	2.68 trillion	USD	19.57 Gt CO_2e

Sources

- Climate Action Accelarator
- International Emission Trading Association (IETA) & Allied Offsets

Economy

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Access to Sustainable Aviation Fuels

Significant progress has been made in SAF production technologies; the HEFA (Hydroprocessed Esters and Fatty Acids) method produces SAF from vegetable oils and waste fats, while Alcohol-to-Jet (ATJ) technology converts ethanol into SAF. The Gasification/Fischer-Tropsch (FT) method converts biomass and solid waste into synthetic fuel.

The production of Sustainable Aviation Fuels requires high capital investments due to the high cost of raw materials and refining. Because SAF production costs are high, renewable diesel fuels are used as an alternative; this leads to fluctuations in SAF supply.

Quantitative Metrics

Currently operating or planned SAF production facilities and SAF capacity:

Production Facilities	120
Production Volume	11.5 billion gallons*

**1 gallon = 3.785 liters*

Not available.

Sources

- WEF, 2020. Clean Skies for Tomorrow Sustainable Aviation Fuels as a Pathway to Net-Zero Aviation
- S&P Global. https://www.spglobal.com/commodityinsights/en/market-insights/blogs/oil/032222-sustainable-aviation-fuel-saf-2050
- IATA Net- Zero Road Map

Table 3: Social and Environmental Variables

Social & Environmental

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Demographics	
According to the SSP1 scenario, migration rates are moderate and balanced. It describes a relatively small population structure with low mortality and fertility rates.	According to the SSP5 scenario, the population largely shifts toward urbanization and the expansion of major cities, involving high levels of migration on a global scale.
Quantitative Metrics	
The world population, which was 7.8 billion in 2020, is expected to reach: • 8.4 billion in 2030 and • 9.1 billion in 2050.	The world population, which was 7.8 billion in 2020, is expected to reach: • 8.4 billion in 2030 and • 9.1 billion in 2050.
Sources	
• IIASA SSP Scenario Explorer 3.1.0	
Urbanization	
Rapid urbanization and high income growth are observed. The regularity of migration rates supports the development of compact and sustainable cities.	Rapid urbanization and rising economic prosperity are observed. Cities significantly increase their capacity and consumption through large-scale engineering projects.
Quantitative Metrics	
In 2020, 56.03% of the world population lived in urban areas. This share is expected to reach: • 63.73% in 2030, and • 76.58% in 2050.	In 2020, 56.03% of the world population lived in urban areas. This share is expected to reach: • 63.81% in 2030, and • 76.76% in 2050.
Sources	
• IIASA SSP Scenario Explorer 3.1.0	

Social & Environmental

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Fossil Fuel Demand	
In emerging markets and economies, energy demand increases by 2.6% annually due to rapid population growth, economic expansion, and industrial development • According to the NZE scenario, it is projected that by 2050, 60–70% of global oil and gas imports will be carried out by Asia. Declining global demand and lower project operating costs may also lead to a decrease in oil prices.	Fossil fuels remain the primary energy source. The transition to clean energy is expected to accelerate only after 2030. • According to STEPS, many oil and gas producers will struggle to cope with fiscal pressures caused by lower revenues. • Due to conflicts in the Middle East, there is a high potential for significant short-term disruptions in oil and gas supply. Considering that around 20% of today's global oil and liquefied natural gas (LNG) supply passes through the Strait of Hormuz, a maritime chokepoint in the region, this geopolitical risk will likely remain elevated in a world aligned with 4°C or higher.
Quantitative Metrics	
Share of fossil fuels in the global energy mix: **2013** 82% **2023** 80% Net income of oil and gas producers: **2023** USD2.27 trillion **2035** USD680 billion	Net income of oil and gas producers: **2035** USD2.4 trillion In the STEPS scenario, slowing oil demand growth suggests that spare crude oil production capacity, which is expected to reach 8 million barrels per day by 2030, could ease market pressures and stabilize prices. In addition, new LNG projects are expected to increase current export capacity by nearly 50% by 2030.
Sources	
• IEA. (2024). World Energy Outlook 2024	

Social & Environmental

World aligned with the Paris Agreement (<2°C)

Temperature Increase & Changes in the Number of Extremely Hot Days

Throughout the 21st century, if no significant reductions are observed in CO_2 and other greenhouse gas emissions over the coming decades, global warming will exceed the 1.5°C and 2°C thresholds. In addition, starting from the second quarter of the century, the number of days with extreme temperatures (>35°C) is expected to increase, particularly in the Southern Hemisphere and around the Equator. The base year is taken as 1850–1900.

Quantitative Metrics

Year / Data	SSP1-2.6 (<2°C)		SSP5-8.5 (>4°C)	
	Temperature increase (°C)	Avg. change in number of extremely hot days (days)	Temperature increase (°C)	Avg. change in number of extremely hot days (days)
2030	1.5	2.8	1.6	3.6
2040	1.5	2.8	1.6	3.6
2050	1.7	4.1	2.4	7.9

Sources

- IPCC. (2021). Climate Change 2021, The Physical Science Basis.
- IPCC. (n.d.). WG-I Interactive atlas: Regional information.

Social & Environmental

World where temperature rise cannot be limited (>4°C)

Temperature Increase & Changes in the Number of Extremely Hot Days

Throughout the 21st century, if no significant reductions are observed in CO_2 and other greenhouse gas emissions over the coming decades, global warming will exceed the 1.5°C and 2°C thresholds. In addition, starting from the second quarter of the century, the number of days with extreme temperatures (>35°C) is expected to rise significantly across the entire Southern Hemisphere and, on the Northern Hemisphere side, as far as the Arctic Circle. The base year is taken as 1850–1900.

Quantitative Metrics

Year / Data	SSP1-2.6 (<2°C)		SSP5-8.5 (>4°C)	
	Temperature increase (°C)	Avg. change in number of extremely hot days (days)	Temperature increase (°C)	Avg. change in number of extremely hot days (days)
2030	1.5	2.8	1.6	3.6
2040	1.5	2.8	1.6	3.6
2050	1.7	4.1	2.4	7.9

Sources

- IPCC. (2021). Climate Change 2021, The Physical Science Basis.
- IPCC. (n.d.). WG-I Interactive atlas: Regional information.

Social & Environmental

World aligned with the Paris Agreement (<2°C)

Increase in CO_2 Intensity

Low-emission scenarios assume socioeconomic conditions characterized by high income equality, sustainable technologies, and strong environmental awareness. According to the SSP1-1.9 scenario, after reaching net-zero levels around or after 2050, emissions will fall to varying degrees of net negative values. CO_2 emissions in this scenario can be classified as very low or low.

Quantitative Metrics

In the NZE scenario, emissions from end-use sectors rapidly decline to around 1 Gt CO_2 by 2050. From the NZE perspective, emissions from end-use sectors are projected to fall to approximately 15 Gt CO_2 by 2030 and to about 1 Gt CO_2 by 2050.

Sources

- IPCC. (2021). Climate Change 2021, The Physical Science Basis.
- IPCC. (n.d.). WG-I Interactive atlas: Regional information.
- IEA. (2024). World Energy Outlook 2024

Social & Environmental

World where temperature rise cannot be limited (>4°C)

Increase in CO_2 Intensity

High-emission scenarios such as SSP5-8.5 are associated with rapid economic growth driven by fossil fuel use and low environmental priorities. Therefore, as socioeconomic conditions deteriorate, an increase in atmospheric greenhouse gas concentrations is observed. High and very high greenhouse gas (GHG) emissions, including CO_2 emissions that nearly double by 2050 and 2100 compared to current levels, will be observed.

Quantitative Metrics

The STEPS trajectory projects an average temperature increase of 2.4 degrees Celsius (°C) by the year 2100. For the aviation sector, according to STEPS, global CO_2e emissions are projected to reach 1158, 1266, 1363, and 1491 Mt CO_2e in 2030, 2035, 2040, and 2050 respectively.

Social & Environmental

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Changes in Precipitation Patterns

As the Earth's surface temperature increases, surface water evaporation is expected to intensify, leading to an increase in precipitation during the near, medium, and long term around the Equator, the Pacific Ocean and its surroundings, and Southeast Asia. The base year is taken as 1850–1900.

As the Earth's surface temperature increases, surface water evaporation is expected to intensify, leading to an increase in precipitation during the near, medium, and long term around the Equator, the Pacific Ocean and its surroundings, and Southeast Asia. The base year is taken as 1850–1900.

Quantitative Metrics

Year / Data	SSP1-2.6 (<2°C)	SSP5-8.5 (>4°C)
	Precipitation amount (mm/day)	
2030	3	3
2040	3	3
2050	3	3.2

In 2023, the global average precipitation amount was 2.82 mm/day.

Sources

- IPCC. (n.d.). WG-I Interactive atlas: Regional information.
- Adler, R.F.; Gu, G. Global Precipitation for the Year 2023 and How It Relates to Longer Term Variations and Trends.

Changes in Wind Speed & Direction

Since climate change will affect general circulation patterns in the atmosphere, it may alter wind speed and direction. Studies show that while wind speeds may decrease in some regions, they may increase in others. In general, greater changes occur over inland areas farther from the ocean. The base year is taken as 1850–1900.

Quantitative Metrics

Year / Data	SSP1-2.6 (<2°C)	SSP5-8.5 (>4°C)
	Wind speed (m/s)	
2030	6.2	6.2
2040	6.2	6.2
2050	6.2	6.2

Sources

- IPCC. (n.d.). WG-I Interactive atlas: Regional information

Social & Environmental

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Changes in Sea Level

Climate change causes the melting of land glaciers and thermal expansion of the oceans. Therefore, sea levels are expected to rise in the coming centuries.

Quantitative Metrics

For both temperature scenarios presented in the report, a sea level rise, even if minimal, is expected from the third quarter of the century onward, particularly along the eastern coast of North America. In a world where the temperature increase reaches 4°C or more, a comparatively greater sea level rise is also observed in the final quarter of the century. Expected changes in sea level under SSP1-2.6 and SSP5-8.5 scenarios are shown in the table below.

Year	Sea level rise (m)
2030	0.1
2040	0.1
2050	0.2

Sources

- IPCC. (n.d.). WG-I Interactive atlas: Regional information

Changes in the Number of Frost Days (FD) when temperatures are below 0 °C

Due to the increase in the concentration of greenhouse gas emissions in the atmosphere caused by anthropogenic activities, the number of frost days may decrease in the Northern Hemisphere and Antarctica.

Due to the increase in the concentration of greenhouse gas emissions in the atmosphere caused by anthropogenic activities, the number of frost days may show a significant decrease in western South America, the coasts of North Africa, the Northern Hemisphere, and Antarctica.

Quantitative Metrics

Year / Data	SSP1-2.6 (<2°C)	SSP5-8.5 (>4°C)
	Average changes in the number of FD (days)	
2030	-7.1	-7.1
2040	-7.1	-10.7
2050	-8.7	-10.7

Sources

- IPCC. (n.d.). WG-I Interactive atlas: Regional information

Table 4: Energy Use and Diversity

Energy

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Final Energy Consumption	
In NZE scenarios, there is a more pronounced increase in the projected rate of technical efficiency improvements. In the NZE scenario, annual energy intensity improvements more than double by 2035. This reflects both the acceleration of electrification and the faster phase-out of traditional biomass use, which is largely replaced by more efficient sources such as electricity and liquefied petroleum gas (LPG).	Between 2023 and 2035, annual population growth is projected to be about 85% of the average level observed between 2013 and 2023. Despite this projected growth, demand for basic energy services such as lighting, cooling, and mobility is expected to continue increasing at least at the same pace as in the past.
Quantitative Metrics	
Global final energy consumption currently stands at 445 exajoules (EJ). By 2035, demand is projected to be 15% lower than current levels.	Global final energy consumption currently stands at 445 exajoules (EJ). This consumption increases steadily to exceed 530 EJ by 2050. According to the STEPS scenario, the rate of final energy consumption growth slows to an annual average of 0.5% between 2023 and 2035, three times slower than in the past. However, this is not due to slow economic growth. Global GDP growth is expected to average 3% annually between 2023 and 2035, similar to the past decade.
Sources	
• IEA. World Energy Outlook 2024	

Energy

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Energy Mix	
In a scenario aligned with the Paris Agreement, the share of fossil fuels in total energy consumption is expected to decline to nearly zero. • While the share of renewable energy sources increases significantly over time, the share of fossil fuels (coal, oil, natural gas) decreases rapidly. • By 2050, fossil fuels are expected to be almost entirely replaced by renewable and nuclear energy.	STEPS, which presents a 4°C or higher temperature increase, projects that fossil fuels will maintain their importance. • Over time, fossil fuel consumption decreases, but the shift toward renewable energy sources is also slow. • Even in 2050, fossil fuels still occupy a significant share of the energy mix. • The use of nuclear energy shows only a modest increase.
Quantitative Metrics	

Global energy supply sources and fossil fuel shares:

	According to the NZE scenario (<2°C)			According to the STEPS scenario (>4°C)		
Fuel Type	2023 (%)	2030 (%)	2050 (%)	2023 (%)	2030 (%)	2050 (%)
Coal	~20	~10	~0	~25	~20	~15
Oil	~30	~20	~10	~30	~28	~25
Natural Gas	~20	~15	~5	~20	~20	~15
Renewables	~25	~45	~70	~20	~25	~35
Nuclear	~5	~10	~15	~5	~7	~10

Sources

- IEA. World Energy Outlook 2024

Energy

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)

Clean Energy Demand

Electricity demand is growing much faster than overall energy demand, due to existing uses such as cooling and new applications like electric mobility and data centers.

- Renewable energy is leading the expansion of electricity generation and is growing fast enough to meet total demand.

The acceleration of the clean energy transition depends on the decline in clean energy prices and the reduction of uncertainties in energy security.

- According to STEPS scenarios, clean energy is projected to meet almost all of the increase in total energy demand between 2023 and 2035.

Quantitative Metrics

Share of electricity in final consumption:

	According to the NZE scenario (<2°C)	According to the STEPS scenario (>4°C)
2024	20%	20%
2035	36%	26%

Sources

- IEA. World Energy Outlook 2024

Table 5: Technological Developments

Aircraft Technology

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Global Liquid Biofuel Demand	
In the NZE scenario, liquid biofuel demand increases more rapidly compared to other scenarios. SAF holds a significant share (approximately 20%) in total biofuel demand by the early 2030s. In advanced economies, this increase in demand levels off after 2035. Due to faster adoption and widespread use of electrification, as well as energy transition strategies, a decline in biofuel demand is observed. In emerging market economies, biofuel demand shows a strong growth trend under this scenario.	In the STEPS scenario, the increase in modern biofuel demand is expected to be met largely through sustainable sources such as forestry and agricultural residues, recycled organic materials, and other organic waste. The increase in liquid biofuel demand is largely driven by the rise in SAF demand. Emerging market economies show strong growth in both biofuel production and demand. Countries such as Brazil, Indonesia, and India make significant contributions to rising biofuel demand by leveraging their abundant feedstock resources.
Quantitative Metrics	
In emerging market economies, liquid biofuel demand may more than double by 2050.	Between 2023 and 2035, liquid biofuel demand is anticipated to increase by approximately 75% in emerging market economies, while a 10% decline may occur in advanced economies. By 2050, Brazil, Indonesia, and India are expected to account for 50% of global liquid biofuel demand, up from 30% today.

Year	Fuel demand (mboe/day*)
2023	2.3
2030	6.5
2050	Unknown

** "mboe" stands for million barrels of oil equivalent.*

Year	Fuel demand (mboe/day*)
2023	2.3
2035	3.2
2050	4.1

** "mboe" stands for million barrels of oil equivalent.*

Sources

- IEA. World Energy Outlook 2024

Aircraft Technology

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
SAF Usage Rate in Aviation	
SAF is assumed to deliver the highest emissions savings in the aviation sector's energy transition toward achieving net zero by 2050.	Not available.
Quantitative Metrics	
In 2023, SAF consumption volumes reached 0.08 Mt, accounting for a negligible share of total energy use across the aviation sector. All net-zero roadmaps indicate that, in order to stay on track to reach net zero by 2050, the share of SAF in total aviation energy demand should be as shown in the table below:	Not available.

Year	SAF volume (%)
2030	24 Mt
2050	400 Mt

Sources

- IATA, Net- Zero Roadmap
- ICAO, LTAG

Aircraft Technology

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Impact of SAF Use on CO_2 Emissions

According to the 1.5°C-aligned modeling (IS3) presented under the long-term goals of the International Civil Aviation Organization (ICAO), achieving the desired reduction in aviation emissions by depends largely (55%) on the use of sustainable fuels. In addition to the major impact of sustainable (biomass-based) fuel use in Integrated Scenario 3, improvements in operations (11%) and technology (21%) can also help limit the increase in aviation emissions to around 200 $MtCO_2$ in 2050.

According to Integrated Scenario 1 (biomass-based), if sustainable fuel use remains at low levels, the impact of operational and technological improvements alone will not be sufficient to prevent the rapid increase in aviation-related emissions (~950 $MtCO_2$ by 2050). According to the IS1 modeling, no emission reduction is achieved in aviation by 2050, but technological improvements slightly limit the increase.

Quantitative Metrics

By 2050, following an 87% reduction in aviation emissions (fuel effect 55%, technology effect 21%, operational effect 11%), the resulting cumulative residual emissions would reach only 12 $GtCO_2$. In the IS3 modeling, with the increased availability of hydrogen technology, which was previously considered insignificant, toward 2070, the residual emissions value could fall to 4 $GtCO_2$.

Following a 39% reduction in aviation emissions by 2050 (fuel effect 15%, technology effect 20%, operational effect 4%), cumulative residual emissions will reach 23 $GtCO_2$. This level is maintained between 2051 and 2070.

Sources

- ICAO Special Supplement: Long-Term Aspirational Goal

Aircraft Technology

World aligned with the Paris Agreement (<2°C)

World where temperature rise cannot be limited (>4°C)

Next-Generation Aircraft

The growth of the civil aviation industry is expected to result in the deployment of several times more turbofan engines than the number of aircraft in operation.

In the long term, even if the use of conventional aircraft engines is reduced, it may not be possible to phase them out entirely.

Quantitative Metrics

- Aircraft with geared turbofan/ultra-high bypass ratio engines provide 16% fuel savings and emission reductions.
- Forecast for aircraft engines between 2019 and 2038:

New aircraft engine (units)	87,658
Cost (based on 2018 market value)	USD1.36 trillion
Jet-fuel-powered new aircraft engine (units)	80,764

Not available.

Sources

- Xiran Liu, D. Z. (2022). Development and progress in aeroacoustic noise reduction on turbofan aeroengines. Progress in Aerospace Sciences
- Giesecke, D., et al (2018). Evaluation of ultra-high bypass ratio engines for an over-wing aircraft configuration. Journal of the Global Power and Propulsion Society

Aircraft Technology

World aligned with the Paris Agreement (<2°C)	World where temperature rise cannot be limited (>4°C)
Electrification & CCUS Technologies	
As part of optimization efforts, initiatives that improve airline operational efficiency and reduce aircraft fuel consumption (such as improvements in airport layout and airside operations) help prevent emissions. • Aircraft ground operations, such as taxiing, runway movements, and the use of auxiliary power units, account for several times the total of all other airport emissions. • Improvements in airport layout (like optimizing the distance between terminals and taxiways or runways, and placing holding areas and bypass taxiways to improve aircraft flow) enhance airline fuel efficiency and CO_2 reduction. Airports can reduce emissions by using electric vehicles for airside operations where a sufficient, reliable, and continuous supply of low-carbon electricity exists, and infrastructure such as well-positioned charging stations is feasible and economically viable. Airside initiatives that reduce aircraft fuel consumption include: • Fixed electrical ground power (FEGP) units and pre-conditioned air (PCA) systems at aircraft stands instead of auxiliary power units and diesel-powered ground service units, • Airside vehicle fleets and ground service equipment powered by electric, hybrid, or alternative fuels instead of fossil fuels, • Alternative fuel hydrant systems that reduce the need for fuel tankers at airports with sufficient traffic volume and efficient aircraft turnaround, and • Towing aircraft with hybrid or electric vehicles to reduce fuel use.	Airports that are able to adapt practices such as electrification and the use of renewable energy remain limited, and air operations largely continue using conventional means. • High-income countries focus on advanced technologies, while developing countries achieve rapid economic growth through fossil fuels. • There is a strong focus on economic development and heavy dependence on fossil fuels. • Emission levels are high, mitigation challenges are severe, and adaptation challenges are low.
Quantitative Metrics	
Not available.	Not available.
Sources	
• IATA – 2024 Airport Environmental Trend Report • IPCC - SSP5	

Risk Management

Risk Management

The Group's processes for identifying, assessing, prioritizing, and monitoring Climate-related risks and opportunities are carried out within an integrated and structured management framework. The Group uses a Sustainability SWOT analysis to identify internal strengths and weaknesses, as well as external risks and opportunities, in areas such as environment, climate, wildlife transport, biodiversity, emissions, energy efficiency, and sustainability. This analysis, defined under the Sustainability Risks and Opportunities Management Procedure, is documented using the Sustainability Risks and Opportunities Evaluation Form and/or the Environmental Risk/ Opportunity Evaluation Form.

(i) The purpose of the Sustainability Risk and Opportunity Management Procedure is to identify, define, prioritize, and assign responsibilities for the partnership's risks and opportunities related to environment, climate, wildlife trafficking, biodiversity, emissions, energy efficiency, and sustainability issues; to determine existing measures and additional measures that can be taken to mitigate risks; and to establish the standard method required exclusively for trade-off studies related to sustainability topics. In this context, the Company carries out activities to identify and assess risks and opportunities within the scope of its Environmental Management System, CDP, Task Force on Climate-related Financial Disclosures (TCFD), Türkiye Sustainability Reporting Standards (TSRS), Emission Risk Assessment, IEnvA Wildlife Module (IWT), biodiversity, and energy.

(ii) The Group uses scenario analyses to assess potential risks within a comprehensive framework. Scenario analysis enables the evaluation of optimistic, business-as-usual, and pessimistic projections, allowing the Group to develop corresponding mitigation and action plans based on these scenarios.

(iii) Risks and opportunities are analyzed by considering the potential outcomes of uncertain situations that may give rise to them, along with the likelihood of those outcomes.
In this assessment, the consequences of an uncertain situation are classified as the impact score, while the likelihood of occurrence is classified as the probability score. The final assessment score for risks and opportunities is calculated by taking into account the existing measures aimed at reducing the impact and/or probability, after which the risks and opportunities are prioritized. Sustainability risks categorized by the Group as Unacceptable/ High Materiality, High/Material, or Acceptable/ Assessable are presented at the Compliance Review Board and Sustainability Committee meetings based on their level of priority. Senior management decides whether these risks and opportunities are Acceptable/Assessable for the Group, based on the Risk and Opportunity Assessment Matrix. When a decision is made to reduce a risk to an acceptable level, eliminate it, or implement an opportunity, the department responsible for the risk or opportunity is identified by the Chief Investment and Strategy Office/Corporate Sustainability Management Department. Additionally, as per the Sustainability Risks and Opportunities Management Procedure, the impact level of a risk is rated based on its effect or rate of change on the Group's financial position, financial performance, and cash flows.

(iv) Sustainability and climate change risks are among the risk types identified through the Sustainability SWOT Analysis process and are assessed using the same procedure as other risk types identified by the Chief Investment and Strategy Office/Corporate Sustainability Management Department. Prioritization is based not on the type of risk but on its impact, probability, and its influence on the strategy as evaluated by the Sustainability Committee.

(v) The Group's Sustainability Risk and Opportunity Management Procedure is structured to cover upstream, downstream, and direct operations across short, medium, and long-term timeframes. Within the scope of this procedure, Climate-related physical and transition risks, as well as associated opportunities, are systematically identified, assessed, and monitored. In this context, information regarding risks and opportunities is regularly reviewed by the relevant units within the framework of defined responsibilities, and necessary updates are made. The procedure is subject to re-evaluation at regular intervals, at least once a year.

(vi) As this report has been prepared for the first time for the 2024 reporting year, there is no prior period information available to serve as a reference for comparison. (TSRS 2, 25a)

Metrics and Targets

Greenhouse Gas Emissions

Scope	Greenhouse Gas Emissions (tCO_2e)
Scope 1	22,602,053
Scope 2	112,320

Total Scope 1 emissions from joint ventures have been calculated as 1,089,503 tCO_2e, and total Scope 2 emissions as 22,554 tCO_2e. As the Group does not have control over these joint ventures, these values are not included in the Group's total Scope 1 and Scope 2 emissions and are instead reported proportionally under Scope 3, Category 15: Investments.

The Group's greenhouse gas emissions have been calculated and reported in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. Additionally, emissions from fuel consumption are also reported under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) developed by the International Civil Aviation Organization (ICAO), as well as under the European Union Emissions Trading System (EU ETS), the Swiss Emissions Trading System (CH ETS), and the United Kingdom Emissions Trading System (UK ETS). All of these reports are verified through audits conducted by authorized independent third-party organizations. (TSRS 2, 29a(i&ii))

Measurement approach, inputs, and assumptions used for calculating greenhouse gas emissions

The Group has adopted the operational control approach for consolidating greenhouse gas emissions. Due to fleet management practices, aircraft acquisition methods, and the types of leasing arrangements used in the aviation sector, the operational control method was selected as the consolidation approach.

Scope 1 Greenhouse Gas Emissions:

Direct greenhouse gas emissions from sources owned or controlled by the Group—including Scope 1 emissions from affiliates—have been fully consolidated and calculated. Scope 1 emissions consist of stationary combustion, mobile combustion, and fugitive emissions.

Stationary combustion emissions were calculated by collecting activity data and applying EF (emission factor) and NCV (net calorific value) values obtained from national and/or international sources. The relevant activity data are as follows:

- Natural gas burned in boilers as a result of stationary combustion,
- Diesel fuel consumption in generators at the end of the calculation period,
- JET A1 fuel consumption,
- Quantity of refrigerant filled and the gas capacity of the equipment, and
- Diesel and gasoline consumption in vehicles due to mobile combustion.

Scope 2 Greenhouse Gas Emissions:

Within this scope, emissions resulting from the consumption of purchased electricity, heating, and cooling energy by the Group were calculated to include fully consolidated Scope 2 emissions of its affiliates. Within the scope of the location-based approach, electricity consumption data were collected from relevant departments, and Scope 2 emissions were calculated using the grid emission factor reported by Türkiye's Ministry of Energy and Natural Resources. Within the scope of the market-based approach, emissions attributed to purchased renewable energy certificates were deducted from the location-based emissions value during the calculation. For emissions from purchased energy (heating), invoices were collected from the relevant departments, and EFs and NCVs from national and/or international sources were used in the calculation. (TSRS 2, 29a(iii))

Reason for selecting the measurement approach, inputs, and assumptions used to calculate greenhouse gas emissions

Under the operational control approach, the Company is responsible for 100% of the emissions from operations under its own or any of its affiliates' operational control. Accordingly, emissions from affiliates were fully consolidated.

The Group applies the operational control approach as the basis for greenhouse gas emissions reporting.

Within this scope, emissions from all units controlled by the Group—including its affiliates—were included in the calculations using full consolidation.

Scope 1 Emissions – Direct Emissions
Included Sources:

- Stationary combustion (boiler, generator)
- Mobile combustion (land vehicles, aircraft)
- Refrigerant gas leaks

Calculation Method:

Activity data are obtained from relevant departments.

Emissions are calculated using the following data:

- Natural gas consumed in boilers as a result of stationary combustion,
- Diesel fuel consumed in generators at the end of the calculation period,
- JET A1 fuel consumed,
- Refrigerant filled and the gas capacity of the equipment, and
- Diesel and gasoline consumed in vehicles as a result of mobile combustion.

Inputs and Assumptions:

Scope 1 calculations are based on national and international sources such as the Energy Market Regulatory Authority (EPDK) 2023 Türkiye Fuel Monitoring System Report, the IPCC 2006 Guidelines, and the values used in calculations under the Regulation on Monitoring and Reporting of Greenhouse Gas Emissions.

No missing data were identified during the calculation period. If any data were missing, a conservative estimation method based on historical averages would be applied. No rounding is applied to consumption data.

Scope 2 Emissions – Indirect Emissions (Electricity, Heating, Cooling)

Calculation Method:

1. Location-Based Approach:

- Electricity consumption data are obtained from invoices.
- The grid emission factor provided in the Electricity Production and Electricity Consumption Point Emission Factors Information Sheet published by Türkiye's Ministry of Energy and Natural Resources is used for the Turkish electricity grid. For the time constant in GPU (diesel) and 400 Hz calculations, the ICAO Airport Air Quality Manual is used; for the diesel GPU emission factor, the Zurich Airport Aircraft Ground Energy Systems document is used; and for ACU and ASU, emission factors derived from TGS emission data are used.

2. Market-Based Approach:

- Purchased Renewable Energy Certificates (YEK-G, I-REC, etc.) are taken into account.
- The emissions corresponding to these certificates are subtracted from location-based emissions to calculate the net value.

3. Heating and Cooling Energy:

- Consumption is calculated based on invoice data.
- EF and NCV values are obtained from the sources mentioned above.

4. Verification and Quality Assurance

- Calculations are performed manually in Excel using consumption data from the Greenhouse Gas Data Form and activity data collected via invoices and similar sources.
- The data are subject to internal audit processes on an annual basis.
- Voluntary third-party verification processes are also conducted in accordance with the GHG Protocol Standard.

There have been no changes in the measurement approach, inputs, or assumptions compared to the previous reporting year. (TSRS 2, 29a(iii))

Location-based Scope 2 emissions refer to greenhouse gas emissions from the electricity, heating, and cooling purchased by the Company and its fully consolidated subsidiaries.

This method enables calculations based on general or regional average emission factors for consumed energy sources. In the reporting year, location-based consolidated Scope 2 emissions were calculated as 112,320 tCO_2e.

Under the market-based approach, emissions are calculated by deducting those associated with purchased renewable electricity certificates (I-REC) from the location-based emission value. In 2024, the Company reduced electricity consumption in its office operations through the purchase of renewable electricity certificates.

This renewable energy consumption resulted in a total carbon emission reduction of 7,567.48 tons in market-based Scope 2 emissions. In the reporting year, market-based Scope 2 emissions were calculated as 104,752.15 tCO_2e. This approach is an important tool for promoting the use of sustainable energy and achieving emission reduction targets. (TSRS 2, 29a(v))

Group consolidated for greenhouse gas emissions

For the reporting period, Scope 1 emissions for the consolidated group were calculated as 22.602.053 tCO_2e and Scope 2 emissions as 112.320 tCO_2e. The companies included in the consolidated Group are listed below.

- THY A.O. (THY)
- THY Teknik A.Ş. (Turkish Technic)
- THY Uçuş Eğitim ve Havalimanı İşletme A.Ş. (TAFA)
- THY Uluslararası Yatırım ve Taşımacılık A.Ş.
- THY Teknoloji ve Bilişim A.Ş. (Turkish Technology)
- THY Hava Kargo Taşımacılığı A.Ş. (Widect)
- THY Destek Hizmetleri A.Ş. (TSS)
- THY Özel Güvenlik ve Koruma Hizmetleri A.Ş.
- Ajet Hava Taşımacılığı A.Ş. (AJET)
- THY Elektronik Para ve Ödeme Sistemleri A.Ş. (TKPAY)
- THY Ortak Sağlık ve Güvenlik Birimi Hizmetleri A.Ş.
- THY Gayrimenkul Yatırım Hizmetleri A.Ş.
- THY Spor A.Ş.
- TCI Kabin İçi Sistemleri San. ve Tic. A.Ş. (TCI)
- TSI Seats INC.

The Group has no other investments outside the scope of the consolidated accounting group. (TSRS 2, 29a(iv))

Percentage of Vulnerable Assets to Climate-related Transition Risks

One transition risk TR1 has been identified as reasonably expected to impact the Group's future financial resilience in the short, medium, and long term. The Group's vulnerable asset to this risk, defined as fuel expenditures, showed no impact in 2024; however, the expected impact is 0.34% in the short term, 0.86% in the medium term, and 3.40% in the long term. (TSRS 2, 29b)

Internal Carbon Pricing

The Group has established a shadow price mechanism for internal carbon pricing to better assess the financial and strategic impacts of Climate-related risks and opportunities.

This mechanism supports various objectives such as ensuring regulatory compliance, identifying low-carbon opportunities, improving energy efficiency, guiding strategy and financial planning, stress-testing investments, setting and achieving Climate-related targets, encouraging low-carbon investments, integrating climate considerations into decision-making, conducting cost-benefit analyses, and promoting climate risk considerations in risk assessments.
In determining the shadow price, the Group has accounted for factors such as the scenario analysis, alignment with prices set under the emissions trading system, benchmarking with industry peers, existing or anticipated regulations, scientific guidance, and alignment with international standards. This mechanism contributes across a broad spectrum, from meeting stakeholder expectations to estimating the financial impacts of sustainable fuel solutions.

Based on the 2024 World Energy Outlook published by the International Energy Agency (IEA), which includes the NZE 2050, SDS, and STEPS scenarios, a reference range of USD90–140 has been adopted for the internal carbon shadow price. (TSRS 2, 29f)

Incorporating Climate-related Considerations into the Remuneration Policy

The financial benefits provided to the Board members, CEO, and senior executives are disclosed in the Board's Activity Report as a total sum, rather than on an individual basis.

All rights, benefits, and compensation provided to the Board Members and senior executives, along with the criteria and principles used to determine them, are outlined in the Company's Remuneration Policy, which is published on the Investor Relations website. The determination of Board member compensation is addressed as a separate agenda item in the General Assembly meeting. Relevant performance metrics are not included in the remuneration policy.
(TSRS 2, 29g)

Sector-Specific Metrics

The Group has assessed the applicability of the disclosure topics defined in the TSRS 2 Sector-Based Implementation Guidance for the Company and all its affiliates. In line with the characterization of the business model, the metrics referenced pertain to companies engaged in aviation activities that share common features namely, THY A.O., THY Hava Kargo Taşımacılığı A.Ş., and AJet Hava Taşımacılığı A.Ş. (TSRS 2, 32)

The disclosed topics and activity metrics specific to TSRS 2-Annex Volume-60 (Air Transportation and Logistics) and TSRS 2-Annex Volume-61 (Airlines), which are addressed in this context, are detailed in the table below.

Within the scope of this report, the Group has not used any source other than the TSRS standards adapted for Türkiye in line with IFRS Sustainability Disclosure Standards, nor has it disclosed or developed any additional metrics. (TSRS 1, 49)

2050 Carbon Neutral Airline Target

The Company aims to become a “Carbon Neutral Airline by 2050” through initiatives such as fleet modernization via next-generation aircraft investments, SAF, renewable energy, fuel efficiency, and operational improvements. To manage unavoidable emissions, carbon offsetting practices are planned to be implemented as part of achieving the target. This target applies to the Company’s core operations. The metric used to define the target is the Company’s Scope 1 emissions. (TSRS 2, 33)

Target-Oriented Strategic Planning

The carbon neutrality target set for the year 2050 is based on gross greenhouse gas emissions and includes CO_2 as the covered greenhouse gas. Although this target was not developed using a Sectoral Decarbonization Approach (SDA), it was defined in line with globally recognized sectoral guidelines and the Group’s climate transition plans. (TSRS 2, 36)

The target year is 2050, and considering the time horizon definitions addressed in this report, it covers the short, medium, and long term. The goal of becoming a “Carbon Neutral Airline by 2050” was established within the framework of the 10-year strategic plan, which was shared publicly in 2023.

SAF is expected to play the most significant role in the sector’s long-term emission reduction goals and decarbonization journey. Depending on its feedstock and production technology, SAF can reduce lifecycle greenhouse gas emissions by up to 87% compared to conventional jet fuel. Its cleaner combustion also reduces harmful particulates in SOx and NOx emissions. IATA estimates that approximately 65% of the emission reductions required to meet the sector’s 2050 net-zero target can be achieved through SAF.

However, achieving this goal cannot be accomplished by airlines alone. Scaling SAF production and use requires collaboration among producers, suppliers, policymakers, aviation stakeholders, and financiers. Global and sectoral projections indicate that SAF supply and availability will increase steadily in the coming years. In this regard, SAF usage is expected to gain momentum after 2040 and is projected to constitute a turning point for the Company’s carbon-neutral target.

SAF was first used on the Istanbul–Paris route on February 2, 2022. Since then, SAF has been used continuously under both voluntary and mandatory SAF regulations, with the aim of increasing usage across multiple routes and frequencies depending on SAF availability. Beyond using SAF, the Company is also developing partnerships to boost SAF production and accessibility, which remain limited globally. To this end, the Company plans to enter into long-term SAF purchase agreements with potential producers planning to manufacture SAF in Türkiye.

In line with the goal of becoming a Carbon Neutral Airline, increasing SAF use and incorporating low-emission, high-efficiency next-generation aircraft into the fleet have been identified as key interim goals and strategic priorities. By 2033, the Group aims to expand its fleet to over 800 aircraft, 90% of which are expected to be next-generation models that emit 15–20% less CO_2 compared to previous-generation aircraft.

Reducing Greenhouse Gas Emissions

The 2050 Carbon Neutral target is an absolute target. Verified emissions data shows that aircraft fuel, which accounts for approximately 99% of GHG emissions, is being reduced through fuel efficiency policies, contributing to emission reductions. Through fuel-saving initiatives implemented under operational optimization, technology investments, and infrastructure improvements, an interim goal has been set to save approximately 1.2 million tons of fuel and reduce approximately 3.8 million tons of CO_2 emissions by 2033.

Although the aviation industry accounts for only 2–3% of global CO_2 emissions, its impact is expected to grow significantly if no action is taken. As one of the sectors with limited alternatives for emission reduction, aviation has taken responsibility to reduce and manage its environmental impacts by joining ICAO’s Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) in 2016. Türkiye has been among the voluntary participants of this initiative since its inception. The industry’s efforts have extended beyond CORSIA, with IATA declaring its net-zero by 2050 goal in 2021, followed by ICAO’s adoption of a Long-Term Aspirational Goal (LTAG) in 2022 at its 41st Assembly to achieve net-zero carbon emissions in international aviation by 2050. Sectoral roadmaps have been developed, including SAF, new aircraft technologies, operational improvements, and carbon offsetting to achieve these climate goals aligned with the Paris Agreement’s 1.5°C target, especially those set by IATA and ICAO.

In addition to these industry goals and roadmaps, Türkiye’s ratification of the Paris Agreement in 2021 and its commitment to achieving net-zero carbon emissions by 2053 also shape the Group’s business strategies.

Accordingly, the Company is committed to actively supporting climate change mitigation and has pledged to become a “Carbon Neutral Airline” by 2050.

Target Monitoring

The 2050 Carbon Neutral Target was established internally by the Company, and its methodology has not been verified by a third party. This absolute target is monitored through the annual verification of the Group’s Scope 1 greenhouse gas (GHG) emissions. As a sub-component of the target, carbon offsetting activities under CORSIA and ETS frameworks are reported annually and verified by an independent third party. Progress toward the target is tracked via the Company’s Scope 1 emissions and the target is reviewed on an annual basis. No changes have been made to the target under the current 10-year strategic plan.

Information and Trends on Target-Related Performance

The Group treats climate action as a core strategic priority and implements industry best practices in areas such as energy and emissions management, SAF use, fleet modernization, and resource efficiency.

As part of the decarbonization strategy and with the awareness that it plays a key role in reducing carbon emissions caused by the aviation sector, the goal is to increase the continuous use of SAF.

The Company, which is modernizing its fleet by investing in next-generation aircraft with lower carbon footprints, also launched an innovative solution in 2024 through a Sustainability-Linked Loan model that aligns financial goals with environmental commitments. Using this innovative model, which takes carbon emission intensity as a core performance metric, the Company financed two Airbus A321NEO aircraft with high fuel efficiency, marking a first.

Through the implementation of over 100 operational improvement projects since 2008, fuel savings reached 70,046 tons in 2024, preventing the release of 221,345 tons of carbon emissions into the atmosphere. In total, since 2008, fuel savings have reached 813,309 tons, and avoided carbon emissions have amounted to 2,570,056 tons.

Emissions that cannot be reduced through operational changes will be compensated through carbon offset projects. (TSRS 2, 36e)

Use of Carbon Credits

To achieve its 2050 carbon neutrality goal, the Company relies to a certain extent on carbon credits, a dependency driven by the structural limitations of the aviation industry and international regulations. Due to its dependence on fossil fuels, limited access to sustainable aviation fuel (SAF), and the lack of widespread technological alternatives, the aviation sector currently has limited options for eliminating emissions in the short term. As one of the sectors with the fewest emission reduction alternatives, aviation has taken responsibility for managing its environmental impact and joined ICAO's CORSIA in 2016.

As Türkiye has been a voluntary participant in this initiative since its inception, the Company has monitored, reported, and verified emissions from CORSIA-covered flights since the pilot phase. Emissions exceeding CORSIA's baseline year levels must be offset using carbon credits from CORSIA-eligible projects. Accordingly, carbon credits are used as a valid tool to achieve this goal and form an integral part of the Group's climate strategy within the framework of international regulations.

Within the scope of the emissions trading systems (ETS), emissions from flights subject to the EU-ETS, UK-ETS, and CH-ETS are monitored, verified by third parties, and reported. An equivalent volume of emissions credits is purchased and submitted to the relevant ETS authority to match the verified emissions. Emission volumes and corresponding credits are verified by accredited bodies designated by the relevant ETS authorities.

Emissions from CORSIA-covered flights are also subject to monitoring, third-party independent verification, and reporting. Verification is carried out by ICAO-approved accredited organizations. The ICAO Technical Advisory Body determines which programs may certify CORSIA EEUs for each compliance period, based on CORSIA's sustainability criteria, and this list is updated regularly. Since October 2024, credits certified under the American Carbon Registry (ACR), Architecture for REDD+ Transactions (ART), Climate Action Reserve (CAR), Global Carbon Council (GCC), The Gold Standard (GS), and Verified Carbon Standard (VCS) are accepted as CORSIA-compliant for its first compliance period.

Additionally, as outlined in the projected impacts

Fuel Saving Initiatives	Description
Auxiliary Power Unit (APU) Policy (Fuel)	Reducing the use of auxiliary power units.
APU Policy (Maintenance)	
Engine Out Taxi-in	Taxi-in using a single engine after landing.
Reduced Acceleration Altitude (RAAL)	Implementing noise abatement climb procedures.
Reduced Flap Take-off	Take-off using reduced flap configuration.
Reduced Flap Landing	Landing using reduced flap configuration.
Idle Reverse on Landing	Using minimal thrust reverse during landing.
Engine Out Taxi-out	Taxi-out using a single engine before take-off.
Commander/Fueller Extra Fuel	Monitoring of additional fuel requests.
CDA (Continuous Descent Approach)	Implementing continuous descent approach procedures.
Alternate Selection	Selecting alternate airports.
Dispatcher/Ops Extra	Monitoring planned additional fuel.
ZFW (Zero Fuel Weight plan vs actual)	Monitoring planned vs. actual zero fuel weight (ZFW) values.
Statistical APU Fuel Planning	Statistically planning APU fuel usage.
SCF (Statistical Contingency Fuel Planning)	Statistically planning contingency fuel.
Weight Reduction	Implementing weight reduction measures.
Airframe/Engine Drag/Aerodynamics/Wash/Paint	Technical maintenance practices.
Potable Water	Monitoring the amount of potable water loaded onto aircraft.
CG optimization	Managing the center of gravity of aircraft.

of Opportunity 3 on the Business Model and Value Chain, the Group offsets the emissions from business travel of its employees through the CO_2mission portfolio. The projects are accredited by leading global certification standards such as the Gold Standard (GS) and Verified Carbon Standard (VCS), and the offsets are verified by independent organizations, including Rainforest Alliance, Re Carbon, RINA, TÜV Rheinland, and Sustaincert.

The source of carbon credits used under CORSIA depends on the eligibility criteria set by ICAO's technical advisory body. CORSIA defines certification requirements for which types of projects are eligible, including both nature-based and technology-based solutions. Nature-based projects typically include forest conservation, afforestation, reforestation, and other ecosystem restoration efforts, while technology-based carbon removal projects involve methods such as carbon capture and storage (CCS). While nature-based projects are currently preferred for CORSIA-compliant credits, technology-based solutions are also expected to be gradually included.

CORSIA-compliant carbon reduction credits can be generated through emissions reductions or removals, provided they comply with principles such as additionality, credible baseline scenarios, permanence, and clear avoidance of harm.

The Company bases its approach on internationally recognized certification systems to ensure the credibility and integrity of carbon credits. Through the CO_2mission program, the Company offers carbon credits sourced from projects certified under respected standards such as Verified Carbon Standard (VCS) and Gold Standard (GS). These certifications ensure that the projects meet specific criteria for transparency, traceability, and long-term environmental impact.

The Company upholds its commitment to transparency by providing detailed information on the selection and use of carbon credits in its sustainability reports. These reports disclose the sources of carbon credits, certification processes, and project monitoring mechanisms, helping stakeholders understand the integrity and long-term impact of the credits.

With this approach, the Company commits to building trust with financial report users and other stakeholders, aligning its carbon offsetting processes with international best practices, and pursuing its environmental sustainability goals through an accountable strategy.

Events that Occurred After the Reporting Period

The EU ETS regulation (Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012), was revised in 2024 to include the monitoring, reporting, and verification of non-CO_2 emissions. As of 2025, the Company, which is subject to EU ETS requirements, has started monitoring non-CO_2 emissions from flights covered by the EU ETS. The first report under this scope will be submitted to the relevant authority in 2026.

On June 26, 2025, the Directorate General of Civil Aviation (DGCA) published the "Sustainable Aviation Fuel Instruction (SHT-SAF)" to define the principles regarding the standards that sustainable aviation fuels must comply with, their mandatory use, and incentives, to reduce greenhouse gas emissions from international aviation activities.

According to the instruction, the DGCA will announce on its official website, no later than the end of the third quarter of each calendar year, the minimum per-liter emission reduction value for SAF use between January 1 and December 31 of that year. Fuel suppliers will be required to supply SAF-blended fuel that meets at least the emission reduction value per liter published by the Directorate for the relevant calendar year, in an amount not less than what they offered to the sector in the previous year, based on a plan aligned with that year's demand. Airlines will also be obliged to consume the specified amount within the same calendar year.

Calculation Principles of Metrics

The information provided in this guide covers the fiscal year ending on December 31, 2024, and includes the relevant operations at airports under the responsibility of Turkish Airlines and its affiliates, as well as the associated facilities at those airports, as detailed in the section titled “Key Definitions and Reporting Scope.”

Affiliates:

- THY Teknik A.Ş.
- THY Uçuş Eğitim ve Havalimanı İşletme A.Ş.
- THY Teknoloji ve Bilişim A.Ş.
- THY Destek Hizmetleri A.Ş.
- TCI Kabin İçi Sistemleri San ve Tic. A.Ş.
- AJET Hava Taşımacılığı A.Ş.
- THY Özel Güvenlik ve Koruma Hizmetleri A.Ş.
- THY Elektronik Para ve Ödeme Sistemleri A.Ş.
- THY Ortak Sağlık ve Güvenlik Birimi Hizmetleri A.Ş.
- THY Gayrimenkul Yatırım Hizmetleri A.Ş.
- THY Spor A.Ş.
- TSI Seats INC.
- THY Hava Kargo Taşımacılığı A.Ş.
- THY Uluslararası Yatırım ve Taşımacılık A.Ş.

General Reporting Principles

The preparation of this guidance document has been based on the following principles:

- In preparing the information – emphasizing the core principles of relevance and reliability for users of the information,
- In reporting the information – emphasizing the principles of comparability/consistency with the prior year and other data, as well as the principles of clarity/transparency that provide clear understanding for users.

Key Definitions and Reporting Scope

For the purpose of this report, the Company provides the following definitions:

Capital	Indicator	Scope
Environmental	Scope 1 Emissions of THY A.O. and Affiliates (tCO_2e)	During the reporting period, this refers to the metric tons of carbon dioxide equivalent of direct greenhouse gas emissions resulting from the following sources at the specified locations of THY and its affiliates: stationary combustion of natural gas tracked via invoices, generator diesel and gasoline consumption tracked via invoices and refueling slips, aircraft fuel consumption from flight and maintenance activities tracked via invoices, diesel and gasoline consumption of leased and owned company vehicles tracked via invoices, and refrigerant gas refills for fire extinguishers and cooling units tracked via service forms provided by the maintenance contractor, as well as operational emission amounts. The Company calculates its greenhouse gas emissions in accordance with the “GHG Protocol Corporate Accounting and Reporting Standard (GHG Protocol, 2004).”Biogenic emissions are not included in the total Scope 1 emissions.
Environmental	Scope 2 Emissions of THY A.O. and Affiliates – Market-Based (tCO_2e)	During the reporting period, this refers to the metric tons of carbon dioxide equivalent resulting from indirect greenhouse gas emissions at the specified locations of THY and its affiliates, including electricity consumption tracked via invoices representing indirect energy use, GPU and 400Hz electricity supply tracked through systems of third-party providers at airports, ACU-ASU electricity supply tracked through systems of third-party providers at airports, and imported electricity and natural gas consumption tracked via invoices, with the amount of purchased renewable energy (I-REC) deducted from the total, in order to calculate the final emission figure. The Company calculates its greenhouse gas emissions in accordance with the “GHG Protocol Corporate Accounting and Reporting Standard (GHG Protocol, 2004).”
Environmental	Scope 2 Emissions of THY A.O. and Affiliates – Location-Based (tCO_2e)	During the reporting period, this refers to the metric tons of carbon dioxide equivalent resulting from indirect greenhouse gas emissions based on electricity consumption tracked via invoices representing indirect energy use at the specified locations of THY and its affiliates, GPU and 400Hz electricity supply tracked through systems of third-party providers, ACU-ASU electricity supply tracked through systems of third-party providers at airports, and imported electricity and natural gas consumption tracked via invoices. The Company calculates its greenhouse gas emissions in accordance with the “GHG Protocol Corporate Accounting and Reporting Standard (GHG Protocol, 2004).”
Environmental	Total Energy Consumption (GJ)	During the reporting period, this refers to the value in GJ obtained by converting the energy sources that make up Scope 1 and Scope 2, as outlined above, based on the consumption at the specified locations of THY and its affiliates.

Data Preparation

Environmental Indicators

Total Energy Consumption (GJ)

Within the scope of direct energy consumption of THY and its affiliates, primary fuel sources such as natural gas, electricity, vehicle fuels (diesel and gasoline), and generator diesel consumption are reported.

The energy conversions used were carried out using the following calculations:

The references used in the calculations are provided in the table below:

Energy Source	Net Calorific Value	Unit	Reference
Natural Gas	8,374	kcal/Sm3	MRV
Diesel (Generator)	10,200	kcal/kg	IPCC
Gasoline (Vehicle Fuels)	10,587,954	kcal/ton	IPCC
Diesel (Vehicle Fuels)	10,277,247	kcal/ton	IPCC
Jet Fuel	44.1	TJ/Gg	IPCC

Scope 1 Greenhouse Gas Emissions (tCO_2e)

Scope 1 emissions have been calculated in accordance with the TSRS, using the operational control approach under the “Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard.”

The calculations use CO_2, CH_4, and N_2O conversion factors to CO_2 equivalent. The emission factors used were taken from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and the Global Warming Potential (GWP) coefficients were sourced from the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report.

Formula:
Emission Amount (tCO_2e) = Activity Data (liters–m^3–tons) * Emission Factor (CO_2–CH_4–N_2O)(kg/TJ)

The energy sources that make up Scope 1 include natural gas consumption, generator diesel and gasoline consumption, jet fuel consumption from flight and maintenance activities, diesel and gasoline consumption of owned and leased vehicles, and use of refrigerant gases.

Natural Gas:
Natural gas consumption is tracked in cubic meters (m^3) based on invoices obtained from service providers at the consumption locations.

Generator Diesel:
Diesel and gasoline consumption for generators is tracked through invoices and refueling slips obtained from service providers at the consumption locations, as well as through meter readings conducted by THY personnel.

Vehicle Fuels:
Diesel and gasoline consumption for owned and leased vehicles is tracked via invoices obtained from service providers at the consumption locations. Diesel and gasoline consumption is monitored separately as off-road and on-road. For off-road vehicles, gasoline consumption is further categorized and tracked based on whether the engine is 4-stroke or 2-stroke.

Aircraft Fuel:
Aircraft fuel consumption is tracked through invoices in two categories: flight-related and maintenance-related.

**Fuel consumption data related to maintenance activities is calculated by multiplying the weighted average of density values obtained from the FMM system by the volume of fuel used in maintenance activities (in liters). The use of weighted averages is necessary due to irregular fluctuations in jet fuel density caused by temperature variations. This approach aims to reduce measurement uncertainty compared to using a simple average.*

Refrigerant Gases:
Refrigerant gas consumption is tracked using refilling slips from the machines where the gases are used and is monitored based on the leakage rates specific to each machine.

Emission Source – Scope 1	CO_2 ($kgCO_2/TJ$)	CH4 (kgCH4/TJ)	N2O (kgN2O/TJ)	Reference
Natural Gas (stationary combustion)	56,100	5	0.1	IPCC 2006, Volume 2, Chapter 3
Diesel (stationary combustion)	74,100	10	0.6	IPCC 2006, Volume 2, Chapter 2
Diesel (mobile combustion) On-Road	74,100	3.9	3.9	IPCC 2006, Volume 2, Chapter 3
Gasoline (mobile combustion) On-Road	69,300	25	8	IPCC 2006, Volume 2, Chapter 3
Diesel (mobile combustion) Off-Road	74,100	4.15	28.6	IPCC 2006, Volume 2, Chapter 3
Gasoline (mobile combustion) Off-Road – 4-stroke engine	69,300	50	2	IPCC 2006, Volume 2, Chapter 3
Gasoline (mobile combustion) Off-Road – 2-stroke engine	69,300	130	0.4	IPCC 2006, Volume 2, Chapter 3
Jet Fuel (mobile combustion)	71,500	0.5	2	IPCC 2006, Volume 2, Chapter 2

Emission Source – Scope 1 Refrigerant Gases	KIP($kgCO_2e/kg$)	Reference
R417A	2,507	IPCC 6th Assessment Report
R410A	2,255	IPCC 6th Assessment Report
R22	1,960	IPCC 6th Assessment Report
R134A	1,530	IPCC 6th Assessment Report
R600A	0.006	IPCC 6th Assessment Report
CO_2	1	IPCC 6th Assessment Report
FM200	3,600	IPCC 6th Assessment Report
R407C	1,907	IPCC 6th Assessment Report
NOVEC	0.556	IPCC 6th Assessment Report
R32	771	IPCC 6th Assessment Report
SF6	24,300	IPCC 6th Assessment Report
R404A	4,728	IPCC 6th Assessment Report
IG541	0.08	IPCC 6th Assessment Report
R12	12,500	IPCC 6th Assessment Report
R123	90.4	IPCC 6th Assessment Report
HFC-236fa	8,690	IPCC 6th Assessment Report
R290	0.02	IPCC 6th Assessment Report

Scope 2 Greenhouse Gas Emissions (tCO_2e)

Scope 2 emissions have been calculated in accordance with the TSRS, using the operational control approach under the "Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard."

The calculations use CO_2, CH_4, and N_2O conversion factors to CO_2 equivalent. The emission factors used are based on the following: for electricity, the 2022 electricity emission factor published in 2024 by the Ministry of Energy and Natural Resources; for GPU and 400Hz, the emission factors in the ground systems report shared by Zurich Airport; and for ASU-ACU, which are considered imported energy, the emission factors were derived from TGS emission data.

Formula:
Emission Amount (tCO_2e) = Activity Data (kWh–h) * Emission Factor (CO_2–CH_4–N_2O)(kg/TJ)

The energy sources that make up Scope 2 include electricity consumption, GPU and 400Hz electricity use, and imported electricity and natural gas consumption. These calculations are carried out in accordance with the following formulations:

Electricity:
Electricity consumption is tracked in kilowatt-hours (kWh) based on invoices obtained from service providers at the consumption locations.

GPU and 400Hz:
GPU and 400Hz refer to electricity supplied by airport operators at gates equipped with such systems, which are used while the aircraft is parked. The electricity provided is tracked using consumption data supplied by the service providers and is included in the invoices issued for the service.

**Energy consumption data from HAVAŞ and ÇELEBİ are measured in minutes. Since operational activity data for GPU and 400Hz equipment cannot be obtained directly from HAVAŞ and ÇELEBİ ground handling companies, consumption is measured in minutes and used as THY data. Türk Hava Yolları A.O. collects GPU and 400Hz data in minutes and calculates it based on the aircraft's time on the ground. The minute data is extracted from the systems of the handling companies. The measurement starts when the equipment is connected and ends when it is disconnected. Therefore, no data is lost.*

Imported Energy:
Imported energy consists of three components: imported electricity, imported natural gas, and energy used for aircraft engines (ASU–ACU). Imported electricity and natural gas are tracked via invoices. The energy used for aircraft engines is tracked using consumption data provided by the service providers and is included in the invoices issued for the service.

Emission Source – Scope 2	Emission Factor (tCO_2e/MWh)	Reference
Electric Energy in Türkiye (Grid-Sourced)	0.442	ETKB-EVÇED-FRM-042 Rev.01

Emission Source – Scope 2	Emission Factor ($kgCO_2e$/h)	Reference
GPU Short-haul Aircraft	19.1	Aircraft Ground Energy Systems at Zurich Airport
GPU Long-haul Aircraft	38.2	Aircraft Ground Energy Systems at Zurich Airport
400Hz Short-haul Aircraft	0.7	Aircraft Ground Energy Systems at Zurich Airport
400Hz Long-haul Aircraft	1.2	Aircraft Ground Energy Systems at Zurich Airport

Emission Source – Scope 2	Emission Factor (tCO_2e/h)	Reference
ACU Per Flight	0.0015	TGS Emission Report
ASU Per Flight	0.00032	TGS Emission Report

Key Judgments and Measurement Uncertainties

The process of identifying and reporting the Company's financially material sustainability-related risks and opportunities is based on estimates and forward-looking information, including short-, medium-, and long-term expectations regarding Total Assets and Period Profit, which are key sector-specific performance indicators. These assessments also require the use of estimates for certain values that cannot be directly measured. Assumptions regarding operational boundaries and emission calculations are provided under the section "Data Preparation," while metric-related details are disclosed on pages 62-63 of this Report.

The Company uses a range of transition and global climate scenarios (ICAO LTAG, IATA Net-Zero Roadmap, IEA WEO 2024, IEA GEC Model 2024, IPCC, SSP1-2.6, SSP5-8.5, RCP, and NZA) to estimate the outcomes of the financial and physical impacts of its sustainability-related risks and opportunities. These scenarios contain uncertainties related to how climate change may affect the frequency and intensity of climate events the Company may face, including the impact of transition risks and changes in greenhouse gas emissions. These uncertainties stem from variability in climate projections and the potential for unexpected changes in the behavior of natural and extreme weather events due to evolving weather patterns and climate conditions.

The changes in the Company's financial performance that may be affected by the transition to a lower-carbon economy and by additional financial obligations that may arise within this mechanism, as presented on pages 15–18 of this Report, are based on estimates and forward-looking information regarding short-, medium-, and long-term expectations.

The calculation steps for assessing the financial impacts of global warming, as presented on pages 19–22 of this Report, and the potential changes in the Company's financial performance in light of these impacts, are based on estimates and forward-looking information regarding short-, medium-, and long-term expectations.

Key Judgments

TR 1: Increase in regulations mandating the use of SAF in different regions and countries

The European Union (EU) has announced the Fit for 55 package, which targets at least a 55% reduction in EU-wide greenhouse gas emissions by 2030 compared to 1990 levels. As part of this package, the ReFuelEU Aviation regulation, which entered into force on January 1, 2024, requires that, starting in 2025, all fuel provided by suppliers to aircraft operators at EU airports must contain a minimum share of sustainable aviation fuel (SAF), and, beginning in 2030, a minimum share of synthetic fuel, with these minimum shares required to increase gradually through 2050.

In 2025, at least 2% of the fuel blend must consist of SAF, increasing to 6% in 2030 and 70% by 2050. Additionally, by 2030, 1.2% of the fuel is expected to be synthetic fuel, with this share reaching 35% by 2050.

Under the regulation, tankering practices will be restricted to prevent emissions caused by the extra weight of transported fuel. Accordingly, airline companies operating at EU airports, such as Turkish Airlines, will be required to procure at least 90% of their annual fuel needs for EU-departing flights from the respective airport.

Sweden, Norway, and France have already been enforcing SAF usage mandates for several years, and with the implementation of Fit for 55, the SAF mandates in Sweden and France have been integrated into ReFuelEU Aviation. Outside the EU, countries in other regions are also implementing similar greenhouse gas reduction strategies. Under the SAF Mandate, which will come into effect in the United Kingdom in 2025, it will become mandatory to use SAF at a rate equivalent to 2% of jet fuel demand; this share will increase to 10% by 2030 and to 22% by 2040. The Directorate General of Civil Aviation (DGCA) in Turkey plans to introduce a SAF usage regulation starting in 2026 for international flights departing from Turkey, through the SHT-SAF directive. This regulation is expected to impose a SAF usage obligation on airlines and a SAF supply requirement on fuel providers. Similar regulations are anticipated to be implemented in other countries in the near future.

TR 2: Increase in the number of countries implementing carbon pricing mechanisms

According to CORSIA, which was developed and voted on by the ICAO, countries that accounted for less than 0.5% of international Revenue Ton Kilometers (RTK) in 2018, Least Developed Countries, Small Island Developing States, and Landlocked Developing Countries are exempt from offsetting requirements unless they voluntarily opt into the program. However, some of these non-mandatory countries have declared their voluntary support for the CORSIA scheme. As of 2024, 126 of the 193 UN member states have joined CORSIA. Currently, there are 67 countries which are not required to participate and have yet to declare voluntary support. Of these, 54 are from the group of Least Developed Countries, Small Island Developing States, or Landlocked Developing Countries. In the coming years, these countries may choose to adopt the CORSIA regulation voluntarily, or they may implement additional carbon pricing obligations under national policies, such as Emission Trading System (ETS) allocations or carbon taxes. The emissions trading systems applied to flight-related emissions in the European Union, the United Kingdom, and Switzerland (EU-ETS, UK-ETS, and CH-ETS) are examples of this and may result in double-charging due to overlapping regulatory obligations for the same emissions.

TR 3: Rising Carbon Credit Prices

When considering the carbon pricing projections of the transition scenarios presented in the International Energy Agency's (IEA) World Energy Outlook 2024 report, all scenarios for 2030, 2040, and 2050 indicate an increase in the price of emission reduction credits.

Under the WEO-24 scenarios, the STEPS scenario includes existing and planned carbon pricing initiatives, while the NZE scenario encompasses broader and stricter additional measures. According to the NZE Scenario, carbon pricing is expected to be rapidly implemented across all regions, reaching high unit prices in advanced economies by 2050.

The uncertainty in long-term price forecasts for CORSIA-compliant emission reduction credits stems from the inability to fully predict the supply–demand balance. The fact that ICAO has not simultaneously defined credit certification programs, and that national authorities have not clarified the accounting procedures for these credits, increases uncertainty around how supply will be shaped and whether it will meet demand.

TR 4: Development of Climate Policies

In this period of intensified global efforts to combat climate change, strict climate policies are being developed in line with the goals of the Paris Agreement. As part of the Fit for 55 Package, the revision of the EU Energy Taxation Directive (ETD) is expected to introduce new steps toward taxing aviation fuels.

This development may require a reassessment of future energy use strategies and operational planning. However, as of the latest ECOFIN Council meeting held on December 10, 2024, no political consensus has yet been reached in the discussions on the ETD revision, particularly regarding the inclusion of the aviation and maritime sectors in the taxation framework.

PR 1: Increase in Average Atmospheric Temperature

The thrust required during aircraft take-off is determined based on air density. Air density and engine performance are critical factors influenced by temperature. Due to global warming, the increase in atmospheric temperature reduces air density, causing aircraft to require more thrust during take-off.

Based on an analysis conducted across different aircraft types and flight sectors on various routes, projections developed using the near- and medium-term average temperature increase scenarios (SSP1–2.6 and SSP5–8.5) from the IPCC Interactive Atlas estimate that a 1°C increase in average temperature could lead to higher fuel consumption in flight operations.

PR 2: Increase in Frequency and Intensity of Extreme Weather Events

According to scenario projections SSP1–2.6 and SSP5–8.5 selected from the IPCC climate scenarios, an increase is expected in both the intensity and frequency of severe weather events such as thunderstorms. Flight cancellations, diversions, and delays caused by such weather events may create additional costs for airlines and may also lead to passenger dissatisfaction.

PR 3: Increase in Extreme Temperatures From Extreme Weather Events

In order for flights to take place, appropriate conditions must be met based on criteria such as atmospheric temperature, altitude, aircraft take-off weight, and runway length. If any of these criteria are not met, the aircraft's take-off weight must be reduced to satisfy the required conditions. Sudden reductions in aircraft weight can only be achieved by reducing the passenger and/or cargo weight on board.

Based on an analysis conducted across different aircraft types and flight distances, the projected increase in extreme temperatures under the near- and medium-term scenarios SSP1–2.6 and SSP5–8.5 may lead to payload loss in operations. Payload loss may result in a decrease in passenger numbers and, indirectly, a reduction in passenger and cargo revenue.

PR 4: Rising Average Temperatures

In hot weather, increased air conditioning needs for parked aircraft may extend the use of GPU (Ground Power Unit) or APU (Auxiliary Power Unit), increasing aircraft energy consumption and directly impacting operational costs.

According to the IEA 2024 Outlook, global final energy consumption currently stands at 445 EJ. Under the NZE scenario, it is projected to decrease by 15% by 2030, while under the STEPS scenario, it may exceed 530 EJ by 2050. The increase in energy consumption due to rising temperatures may pose a risk to the Group's ability to achieve its targets.

Opportunity 1: Use of Sustainable Aviation Fuel (SAF) and Optimization of Flight Routes

SAF has the potential to significantly reduce CO_2 and particulate matter emissions over its life cycle compared to conventional fossil-based jet fuels. Its low aromatic and sulfur content in particular helps improve air quality while also reducing operational costs in the long term by mitigating the impact of carbon pricing and environmental regulations. With these attributes, SAF plays a central role in the decarbonization of aviation.

Studies also show that the low particulate emissions of SAF may reduce the formation and persistence of contrails at high cruising altitudes. Contrails form when water vapor condenses around exhaust particles, and when they remain in the atmosphere for extended periods, especially during nighttime, they can trap thermal radiation returning to the surface, causing a warming effect on the climate. Research suggests that SAF can reduce the climate impact of aircraft contrails by 20% to 50%, and SAFs with low aromatic content may further mitigate this impact by reducing ice crystal formation by 50% to 70%.

In this context, the Company is taking a leading role in implementing innovative practices in sustainable aviation; it contributes to sectoral transformation through knowledge sharing, joint project development, and policy dialogue by engaging in multi-stakeholder coalitions such as the Türkiye Sustainable Aviation Platform and the Global SAF Declaration. These collaborations not only help reduce environmental impacts, but also support economic sustainability by enhancing green financing opportunities, creating employment, and promoting domestic SAF production. In line with its 10-year strategy, the Company aims to increase the number of aircraft in its fleet to over 800 by 2033 and become a carbon-neutral airline by 2050. To achieve this goal and recognizing the key role of SAF in reducing carbon emissions from the aviation sector, SAF was first used on the Istanbul–Paris route on February 2, 2022, as part of the decarbonization strategy. Since then, SAF use has continued on a voluntary basis as well as under mandatory SAF regulations, and the Company aims to expand its use across various routes and with increasing frequency, depending on SAF availability. In the coming years, the Company plans to support domestic producers and products through long-term SAF supply agreements, with the aim of promoting various production technologies and supporting SAF production in Türkiye. In 2024, the Company carried out a project to define its short-, medium-, and long-term SAF strategies. As part of this project, a SAF portfolio was created based on the Company's growth strategies, focusing on investment and offtake options to meet anticipated SAF demand.

Opportunity 2: Use of renewable energy and resource efficiency

In line with Türkiye's National Energy Plan, the goal is to increase the share of renewable energy sources in primary energy consumption to 50% by 2053; in this context, sector-specific incentives are rapidly expanding. Increasing the use of renewable energy in the Group's operations will be particularly effective in reducing Scope 2 emissions and will also enable the development of a resilient and sustainable energy procurement strategy in response to fluctuations in fossil fuel prices. This transition will contribute to strengthening environmental sustainability and improving the long-term management of operational costs.

Simultaneously, having obtained the Platinum Operations Certificate for its OC Crew Terminal Building, which serves as a terminal for Turkish Airlines flight crews, the Group became the third airline globally and the first in Europe to achieve this distinction. The Group's LEED Platinum-certified projects and the new sustainable building initiatives launched in 2023 are increasing energy and resource efficiency and supporting the development of environmentally friendly infrastructure. These projects create cost advantages and also strengthen the Group's alignment with international green building standards as well as its global sustainability performance. When considered together, renewable energy investments and environmentally friendly infrastructure projects demonstrate that the Group is building a growth model that is both financially and environmentally resilient and aligned with its climate strategies. When considered in conjunction with renewable energy investments and environmentally friendly infrastructure projects, it is evident that the Group is building a growth model that is both financially and environmentally resilient and aligned with its climate strategies. This approach reinforces stakeholder trust and enhances the Group's sustainable brand value in the sector.

Opportunity 3: Sustainability-focused practices

The Group's focus on environmental responsibility plays an effective role in strengthening customer loyalty as part of its broader sustainability efforts. In line with growing sustainability awareness, the Company launched its voluntary carbon offsetting program, CO_2mission, in August 2022 to both meet passenger expectations and underscore the importance of collective action in addressing climate change.

Through the program, approximately 5.7 million kg of CO_2 emissions were offset between August 2022 and the end of 2024. The Company also offsets emissions resulting from the business travels of employees as part of the CO_2mission program. Such innovative practices enhance the Group's brand image by underlining its environmental responsibility, foster customer loyalty, and support its strategic planning toward sustainability goals.

Considerations Taken Into Account in the Identification of Material Information That Will Be Included in Financial Disclosures

TR 1: Increase in Regulations Mandating the Use of Saf in Different Regions And Countries

The financial impact of the risk is based on actual 2024 data and annual fuel consumption forecasts derived from traffic projections. SAF and synthetic fuel needs were estimated based on the annual SAF and synthetic fuel blend ratios defined under ReFuelEU and UK SAF regulations. Technological upgrades within the aircraft fleet and improvements in operational efficiency were accounted for as mitigating factors. In the absence of policy support, SAF prices are expected to fluctuate within a broad range. The financial impact for SAF and synthetic fuels was estimated under two different pricing scenarios: minimum and maximum. Within the scope of the SHT-SAF Instruction, the reference in the directive to ICAO's target of a 5% emission reduction by 2030 has been addressed.

TR 2: Increase In The Number Of Countries Implementing Carbon Pricing Mechanisms

To estimate the financial impact, emissions trading systems with which the Company is required to comply (EU ETS, UK ETS, CH ETS), as well as CORSIA and potential national carbon pricing mechanisms that may be implemented by individual countries, are taken into account. However, the high level of uncertainty surrounding countries' choice of pricing mechanisms limits the ability to quantify the overall financial impact of these regulations.

TR 3: Increase In Carbon Credit Prices

In the financial impact analysis of risks related to CORSIA-compliant emission reduction units (EEUs), long-term price forecasting is difficult due to the unpredictability of supply-demand dynamics. The phased approval of eligible crediting programs by ICAO has introduced uncertainty about how the supply of compliant credits will evolve over the long term and whether it will be sufficient to meet demand. It is assumed that the price trajectory of CORSIA-compliant credits will mirror trends observed in the voluntary carbon market, with both credit types expected to follow similar patterns. This approach is based on the assumption that a price increase trend is highly probable.

TR 4: Evolution of Climate Policies

The potential financial impacts related to the taxation of aviation fuels have been analyzed in line with the revision of the EU Energy Taxation Directive (ETD). Since the ETD is expected to apply within the same geographic scope as the EU ETS (intra-EU flights), emissions and fuel data under the EU ETS have been used in the modeling.

PR 1: Increase in Average Atmopheric Temperature

Fuel consumption changes under different temperature scenarios (ISA+15 and ISA+17) were analyzed for 6 representative aircraft types and routes selected using Airbus PEP and Boeing PET software systems. The average fuel increase per 1°C rise in temperature was determined and this data was combined with growth and jet fuel price forecasts based on traffic projections to calculate short, medium, and long-term financial impacts. For the upcoming years, temperature projections for the Mediterranean region were sourced from the IPCC Interactive Atlas using CMIP6 SSP1-2.6 and SSP5-8.5 scenarios.

PR 2: Increased Frequency and Severity of Extreme Weather Events

The financial impact of this risk was analyzed by focusing on the 10 destinations with the highest number of diversions and cancellations due to thunderstorms since 2018. For these destinations, geospatial coordinates were selected for probable orage events in the years to come, and short and medium-term changes in precipitation frequency were assessed using IPCC SSP1-2.6 and SSP5-8.5 scenarios. Additional operational cost projections due to percentage increases in precipitation frequency were calculated using Eurocontrol's diversion and cancellation costs, along with growth and inflation estimates based on the Company's traffic projections.

PR 3: Increase in Extreme Temperatures From Extreme Weather Events

A sample of long-haul flights departing from Istanbul Airport during the summer schedule and the hottest hours of the day (12:00–16:00) was examined. Based on the 2025 summer schedule, potential payload losses (in tons) due to high temperatures were identified. Based on the 2025 summer schedule, potential payload losses (in tons) due to high temperatures were identified. Performance data were analyzed for possible temperature increases above the observed maximum of 37°C, up to 45°C. Changes for passengers and cargo were evaluated separately and modeled using IPCC SSP1-2.6 and SSP5-8.5 scenarios, based on the projected number of extremely hot days at Istanbul Airport through 2045.

PR 4: Rise in Average Temperatures

To analyze the financial impact of this risk, data on current GPU usage and associated costs at domestic airports were compiled on a monthly basis. For international airports, GPU usage volume and cost were estimated based on the number of landings in existing traffic data and energy prices in the most frequently flown countries. Based on the monthly temperature analysis by the Turkish State Meteorological Service, as well as the IPCC SSP1-2.6 and SSP5-8.5 scenarios for the Mediterranean region, changes in average temperatures were estimated. In line with these temperature increases, a rise in GPU usage demand is predicted.

Opportunity 1: Use of sustainable aviation fuel (SAF) and optimization of flight routes

According to scientific studies and research cited in the International Air Transport Association (IATA)'s report titled "The Non-CO_2 Climate Co-Benefit of SAF and Other Fuels with Low Aromatic and Sulfur Content – Current Scientific Knowledge and Challenges," both ground and flight tests show that using SAF with low aromatic and sulfur content significantly reduces non-volatile particulate matter (nvPM) emissions. This effect represents a significant opportunity to mitigate non-CO_2 climate factors, such as black carbon and contrail formation.

Opportunity 2: Use of renewable energy and resource efficiency

The Company has a total installed capacity of 5,476.45 kWp, with 4,365.45 kWp at the AHL Cargo Building and 1,111 kWp at the Sedat Şekerci Campus. Starting in July 2025, both facilities will be powered by electricity generated from the solar power plant (SPP) project. Sources such as Statista and the International Energy Agency (IEA)'s World Energy Outlook 2024 report were used to estimate electricity unit prices through 2045. The electricity savings potential was analyzed for the short, medium, and long term by comparing generation capacity to total consumption

Opportunity 3: Sustainability-focused practices

The voluntary carbon offsetting program (CO_2mission), investments in next-generation aircraft, and the use of Sustainable Aviation Fuel (SAF) are considered to indirectly support financial performance through their positive impact on brand value, customer loyalty, and investor interest. These practices also serve as a strategic measure against transition risks such as carbon pricing mechanisms, regulatory compliance, and reputational risks. In this context, these opportunities contribute to the Company's long-term sustainable value creation capacity and have the potential to influence investor decision-making.

Measurement Uncertainty

Sources of measurement uncertainty and assumptions, estimates, and judgments made in measuring amounts related to Risks/Opportunities

TR 1: Increase in regulations mandating the use of SAF in different regions and countries

The quantified value of this risk involves a high degree of measurement uncertainty. IATA estimates that 65% of the carbon reductions required to achieve net-zero emissions by 2050 will come from Sustainable Aviation Fuels (SAF). In 2023, SAF production accounted for only 0.18% of global jet fuel consumption. In 2024, this share rose to just 0.3%. The sector purchased and used all SAF produced.

Existing supply chains are designed to meet the high demand of airlines for conventional jet fuel. However, SAF is supplied in relatively smaller volumes. In addition to production volume, constraints at smaller airports and logistical costs related to SAF supply are also noteworthy.

To comply with SAF regulations, the share of SAF in total aviation fuel must increase. Factors such as raw material availability, advances in SAF production and aircraft technologies, supply chain improvements, pricing policies tied to SAF supply, production capacity, and supply chain issues affect future SAF availability and pricing, creating significant uncertainty. This level of uncertainty may hinder the sector's ability to accelerate the transition to SAF and achieve long-term targets. The assumptions, estimates, and judgments used in measuring the relevant amount are as follows:

- Updated actual data for 2024: Actual figures from 2024 were used in projecting future fuel needs and traffic estimates.
- Future fuel needs were estimated based on traffic projections (ASK).
- European Economic Area (EEA) Flights: For the ReFuelEU Aviation projection, the Group's 2024 fuel consumption data for flights departing from the European Economic Area was increased on an annual basis in line with traffic forecasts.
- United Kingdom Flights: For the UK SAF Mandate projection, the Group's 2024 fuel consumption data for flights departing from the UK was increased on an annual basis in line with traffic forecasts.
- SAF and Synthetic Fuel Scenarios: Two separate financial impact estimates—minimum and maximum—were developed based on different price scenarios.
- As per ReFuelEU Aviation, the mandatory use of synthetic fuel starting in 2030 led to the assumption that synthetic fuel will be

priced higher than SAF.

- Within the scope of the SHT-SAF Instruction, the amount of SAF to be used for a given year will be determined by the DGCA (Directorate General of Civil Aviation) no later than the end of the third quarter of the previous year. For the projection under the SHT-SAF directive, international flights departing from Türkiye within the scope of CORSIA and ICAO's reference to its 5% emission reduction target by 2030 have been taken into consideration.
- It was assumed that SAF prices would fluctuate within a broad range in the absence of policy support. The financial impact of the regulations was calculated using year-specific minimum and maximum unit prices.

TR 2: Increase in the number of countries implementing carbon pricing mechanisms

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- The supply and pricing of CORSIA-compliant emission reduction units (CEUUs) and ETS allocations bear uncertainty.
- The implementation of overlapping carbon pricing mechanisms may affect demand.
- Political and regulatory changes made during the periodic review processes of CORSIA, which is expected to remain in effect until 2035, may lead to variations in countries' policy approaches to balancing their Nationally Determined Contributions (NDCs) under the Paris Agreement with CORSIA compliance.
- Countries may implement or repeal various instruments such as ETS or carbon taxes in line with their carbon pricing policies.
- Increased emissions due to sectoral or individual expansion may influence future projections of offset requirements, credit demand, and allocation obligations.

TR 3: Increase in carbon credit prices

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- Supply Uncertainty: The supply of CORSIA-compliant emission reduction credits (CORSIA Eligible Emissions Units – CORSIA EEUs) depends on certification programs designated by ICAO for each compliance period, compliance with CORSIA sustainability criteria, and the development of new projects. Supply-side uncertainty may lead to price volatility, especially in the event of rising demand.
- Demand Variability: Airlines' emission reduction strategies, broader adoption of SAF, and regulatory changes may influence demand for CORSIA credits. In particular, the implementation of national carbon pricing mechanisms may reduce airlines' reliance on CORSIA.
- Political and Regulatory Changes: During the periodic review processes of CORSIA, which is planned to remain in effect until 2035, adjustments may be introduced regarding eligible credit types and their scope. In addition, alignment between countries' Nationally Determined Contributions (NDCs) under the Paris Agreement and CORSIA compliance may drive policy shifts.
- Overlap with Local and Regional Regulations: Regional carbon markets such as the EU ETS may influence which mechanisms airlines prefer. Demand for CORSIA-compliant credits may vary depending on the expansion of such systems.
- SGF and IGF Uncertainty: Another critical factor in calculating CORSIA obligations is uncertainty around the Sectoral Growth Factor (SGF) and Individual Growth Factor (IGF). According to the CORSIA methodology, emission increases tied to sectoral and individual growth are key inputs for estimating offset requirements and airlines' credit needs. A discrepancy between the sector's growth rate and that of individual airlines may result in higher obligations for certain carriers. Significant changes in these growth factors could substantially alter offset requirements.
- Credit Quality: While ICAO states that it supports only high-quality credits that meet additionality and sustainability criteria under CORSIA, the presence of low-quality or ineffective credits in the market may undermine trust and impact the voluntary carbon market.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the risk are as follows:

- Updated Actual Data for 2024: As the Company has been reporting under CORSIA since 2019, future emission and offset requirements under CORSIA were estimated based on actual data from 2019 and 2024.
- Future requirements were estimated based on traffic projections (ASK).
- CORSIA Eligible Emissions Units (CORSIA EEUs) Scenarios: The unit price of CORSIA-compliant emission reduction credits was based on literature sources such as price forecasts from management consulting firms, ICAO's CORSIA scenarios, and IATA estimates.
- Sectoral Growth Factor (SGF) and Individual Growth Factor (IGF): For SGF, two scenarios were developed based on medium and high-growth projections from IATA analyses. IGF was estimated using actual traffic data, the Company's future traffic forecasts, and past CORSIA reporting data.
- All of these assumptions and judgments were considered in line with CORSIA's implementation timeline through 2035.

Based on varying CORSIA EEU price scenarios, SGF scenarios, and IGF estimates, four distinct financial impact projections were developed.

TR 4: Evolution of climate policies

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- Forecasts for conventional jet fuel demand within the scope of the Energy Tax Directive (ETD) are based on future projections.
- It is uncertain whether the legislation will actually enter into force.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the risk are as follows:

- The Company's fuel consumption for flights between EU airports was scaled up annually based on traffic forecasts; fuel savings from next-generation aircraft investments and operational improvements were included as mitigating factors.
- These flights were analyzed separately as cargo and passenger transport activities. Given that emissions and fuel consumption under EU ETS, covering both of the Company's core activities, are currently relatively low, the impact of the Energy Tax Directive (ETD)—which only applies to passenger flights—is expected to be even lower.

PR 1: Increase in Average Atmopheric Temperature

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- Market and external factors pose a risk of fluctuation in fuel prices.
- ASK growth values are dependent on fleet modernization and technology improvement forecasts, which may lead to deviations in projected growth.
- Fuel consumption values may vary across different aircraft types and routes, resulting in uncertainty.
- Future fuel consumption estimates based on optimistic and pessimistic IPCC temperature change projections also involve uncertainty.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the risk are as follows:

- Multiple Market Forecasts: Relevant Company departments assessed Brent crude oil price projections through 2045, based on financial institutions and market forecasts.
- Diversification of Data Sources: Various market forecasts were analyzed through 2045, taking into account fleet modernization, technological improvements, and traffic projections.
- Sensitivity Analysis: Due to variations by route, aircraft type, and flight conditions, sensitivity and diversification analyses were conducted using the Flight Plan Performance Unit and E-Performance system. The impact of each temperature increase on fuel consumption was assessed using linear modeling.
- Multi-scenario Analysis: Geographic projections focused on the Mediterranean region were developed using the optimistic (SSP1-2.6) and pessimistic (SSP5-8.5) scenarios for short and medium-term projections.

PR 2: Increased frequency and severity of extreme weather events

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- Market and external factors, including currency fluctuations and inflation, pose a risk of volatility.
- Precipitation changes as per IPCC climate projection scenarios may introduce uncertainty into diversion and cancellation rates.
- Regional precipitation deviations in different destinations as per IPCC climate projections may cause further uncertainty.
- Destinations where diversions and cancellations occur may vary in future years, leading to potential deviations.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the risk are as follows:

- Multiple Market Forecasts: Relevant Company departments assessed Brent crude oil price projections through 2045, based on financial institutions and market forecasts.
- Multi-scenario Analysis: The optimistic (SSP1-2.6) and pessimistic (SSP5-8.5) scenarios were used for short and medium-term projections to ensure realistic modeling.
- Sensitivity Analysis: Destination-specific optimistic and pessimistic scenarios were applied using the IPCC Interactive Atlas for selected Company locations.
- Diversification of Data Sources: In collaboration with the meteorological research unit, domestic and international destinations with the highest number of diversions and cancellations were selected for analysis.

PR 3: Increase in Extreme Temperatures From Extreme Weather Events

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- Differences between climate projections in the IPCC Interactive Atlas affect maximum temperature forecasts.
- Including summer schedule flights in the analysis may lead to data uncertainty.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the risk are as follows:

- Multi-Scenario Analysis: The impact of rising temperatures on payload loss was assessed by comparing short and medium-term projections under the optimistic (SSP1-2.6) and pessimistic (SSP5-8.5) climate scenarios.
- Data Refinement and Disclosure of Constraints: Using the Company's E-Performance software system, long-haul flights scheduled to depart during the hottest hours of the day in the summer timetable were selected as a sample. In this sample, potential payload losses (in tons) were assessed for the longest flights in the 2025 summer schedule expected to experience heat-related payload reductions.

PR 4: Rise in Average Temperatures

There is a high degree of measurement uncertainty in estimating the financial impact of this risk, and the key sources of uncertainty are as follows:

- Uncertainty in climate scenarios: Differences between the low-emission SSP1-2.6 and the high-emission SSP5-8.5 scenarios affect temperature rise estimates and GPU usage costs. Regionally developed projections vary depending on model assumptions and emission policies.
- GPU usage at international airports may vary due to fluctuations in traffic data and changes in the number of landings.
- International GPU usage costs are affected by the uncertainty in country-specific electricity prices.
- Economic uncertainty, exchange rate fluctuations, and changes in electricity prices influence cost estimates.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the risk are as follows

- Multi-scenario Analysis: Based on the SSP1-2.6 (optimistic) and SSP5-8.5 (pessimistic) climate scenarios, the short- and medium-term impact of temperature increases on GPU costs was evaluated using multiple projections centered on the Istanbul Airport location.
- Proportion Analysis: GPU usage fees at international airports were estimated using a proportional analysis method based on domestic traffic data.
- Data Integration and Currency: Monthly temperature data from the Turkish State Meteorological Service was integrated into GPU cost estimates. Multi-country data sets were used for electricity prices and international GPU costs, and weighted averages were applied
- Multiple Market Forecasts: GPU costs were calculated by combining the number of landings and traffic volumes with future energy projections.

Opportunity 1: Use of sustainable aviation fuel (SAF) and optimization of flight routes

The effects of SAF use on contrail formation and associated climate impacts are evaluated through leading studies such as IATA's report "The Non-CO_2 Climate Co-Benefit of SAF and Other Fuels with Low Aromatic and Sulfur Content – Current Scientific Knowledge and Challenges," the ECLIF2 flight campaign (DLR, NASA, Airbus), the ICAO LTAG SAF technical report, and research by Märkl et al. (2024), Voigt et al. (2021), Schripp et al. (2022), and Moore et al. (2015). However, the models used to calculate these effects attempt to simulate complex atmospheric processes—such as particulate matter characteristics, ice crystal formation, and radiative forcing—which introduces a certain level of uncertainty into the results. In particular, under low soot emission conditions, current models may overestimate certain effects. Additionally, the limited sampling capacity of field and flight measurements, combined with variable atmospheric conditions, contributes to uncertainty in quantitative impact assessments.

The potential of SAF to reduce CO_2 and particulate matter emissions is supported by field and flight data, and SAFs with low aromatic and sulfur content are expected to reduce contrail formation, thereby mitigating radiative forcing effects. However, especially under low soot emission scenarios, current modeling tools may overstate certain effects. Due to scientific uncertainties and data gaps in evaluating contrail-induced climate impacts, the financial value of this opportunity could not be calculated. Therefore, the analysis has been limited to a qualitative assessment.

Opportunity 2: Use of renewable energy and resource efficiency

The financial benefits and emission reduction impact of infrastructure investments in renewable energy and resource efficiency were estimated based on technical assumptions and market projections. As a result, the projected savings and benefits involve a certain degree of measurement uncertainty. However, the assumptions used in the analysis were supported by historical data, technical feasibility studies, and publicly available market forecasts, and the judgments were made with consideration of conservative scenarios.

The main sources of measurement uncertainty are listed below:

- Variability in the annual production capacity of solar power plant (SPP) projects due to external factors such as solar irradiation, temperature, and system performance
- Changes in energy and resource consumption levels over time due to variations in operational processes
- Fluctuations in electricity and resource costs due to exchange rates, market prices, and energy policies
- Potential regulatory changes in the scope, duration, and implementation of national incentive schemes
- Possible deviations from targeted energy efficiency ratios during the implementation phase of new building projects
- The installed capacity of solar power projects was compared with the facilities' annual consumption data to calculate the annual production-to-consumption coverage ratio.

Assumptions, estimates, and judgments used in analyzing the future financial impact of the opportunity are as follows:

Electricity unit price projections were based on scenarios from reliable international sources such as Statista and Energy Outlook. The support measures announced under Türkiye's National Energy Plan were assumed to remain in effect in their current form. For new building projects, it was projected that renewable energy would contribute at least 5% and that certification standards such as LEED would be met.

Calculations are based on the estimated amount of carbon emission reductions multiplied by standard emission factors (tCO_2/MWh). These estimates were developed cautiously and are consistent with technical feasibility analyses.

Opportunity 3: Sustainability-focused practices

The main sources of measurement uncertainty for this opportunity are as follows:

- Variability in consumer behavior (e.g., how preferences for sustainable products/services will evolve over time)
- Inability to directly monitor the market value impact of carbon offset programs and SAF implementation
- Lack of methodologies to isolate the impact of implemented sustainability initiatives on financial indicators such as revenue growth or cost reduction
- Uncertainty surrounding future regulations and carbon pricing

The financial impacts of this opportunity—such as increased customer loyalty, enhanced reputation, and investor interest—carry a high degree of measurement uncertainty. The direct or indirect financial returns associated with this opportunity could not be quantified, as current data and methodologies are insufficient to determine a monetary value. However, the assessment suggests that these initiatives may support long-term financial value through customer loyalty, investor interest, and reputation gains. While the short-term direct revenue impact may be limited, these initiatives are assumed to contribute to climate action and generate strategic competitive advantage. The reason for not conducting a quantitative estimate is the external uncertainties outlined above and the underdevelopment of impact measurement methodologies.

Restatement Declaration

The measurement and reporting of verified data inevitably involves a certain degree of estimation. If there is a variance of more than 5% on the data collected at the Group level, a restatement may be warranted.

CONVENIENCE TRANSLATION INTO ENGLISH OF PRACTITIONER'S LIMITED ASSURANCE REPORT ORIGINALLY ISSUED IN TURKISH

INDEPENDENT PRACTITIONER'S LIMITED ASSURANCE REPORT ON TÜRK HAVA YOLLARI ANONİM ORTAKLIĞI AND ITS SUBSIDIARIES SUSTAINABILITY INFORMATION IN ACCORDANCE WITH TURKISH SUSTAINABILITY REPORTING STANDARDS

To the General Assembly of Türk Hava Yolları Anonim Ortaklığı

We have undertaken a limited assurance engagement on Türk Hava Yolları Anonim Ortaklığı (the "Company") and its subsidiaries (collectively referred to as the "Group"), sustainability information for the year ended 31 December 2024 in accordance with Turkish Sustainability Reporting Standards 1 "General Requirements for Disclosure of Sustainability-related Financial Information" and Turkish Sustainability Reporting Standards 2 "Climate Related Disclosures" ("Sustainability Information").

Our assurance engagement does not extend to information in respect of earlier periods or other information linked to the Sustainability Information (including any images, audio files, document embedded in a website or embedded videos).

Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the 'Summary of the work we performed as the basis for our assurance conclusion' and the evidence we have obtained, nothing has come to our attention that causes us to believe that Group's Sustainability Information for the year ended 31 December 2024 is not prepared, in all material respects, in accordance with Turkish Sustainability Reporting Standards published in the Official Gazette dated 29 December 2023, and numbered 32414(M) and issued by Public Oversight Accounting and Auditing Standards Authority (the "POA") . We do not express an assurance conclusion on information in respect of earlier periods.

Inherent Limitations in Preparing the Sustainability Information

As discussed in "Calculation Principles of Metrics" on pages 61 to 68 the Sustainability Information is subject to inherent uncertainty because of incomplete scientific and economic knowledge. Greenhouse gas emission quantification is subject to inherent uncertainty because of incomplete scientific knowledge. Additionally, the Sustainability Information includes information based on climate-related scenarios that is subject to inherent uncertainty because of incomplete scientific and economic knowledge about the likelihood, timing or effect of possible future physical and transitional climate-related impacts.

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Responsibilities of Management and Those Charged with Governance for the Sustainability Information

Management of Türk Hava Yolları Anonim Ortaklığı are responsible for:

- The Group management is responsible for the preparation of the sustainability information in accordance with Turkish Sustainability Reporting Standards;
- Designing, implementing and maintaining internal control over information relevant to the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error;
- The Group Management is also responsible for the selection and implementation of appropriate sustainability reporting methods, as well as making reasonable assumptions and developing estimates in accordance with the conditions.

Those charged with governance are responsible for overseeing the Group's sustainability reporting process.

Practitioner's Responsibilities for the Limited Assurance on Sustainability Information

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our conclusion to the Directors of Türk Hava Yolları Anonim Ortaklığı.
- Perform risk assessment procedures, including obtaining an understanding of internal control relevant to the engagement, to identify where material misstatements are likely to arise, whether due to fraud or error, but not for the purpose of providing a conclusion on the effectiveness of the Company's internal control.
- Design and perform procedures responsive to where material misstatements are likely to arise in the sustainability information. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

Misstatements can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of Sustainability Information.

As we are engaged to form an independent conclusion on the Sustainability Information as prepared by management, we are not permitted to be involved in the preparation of the Sustainability Information as doing so may compromise our independence.

Professional Standards Applied

We performed a limited assurance engagement in accordance with Standard on Assurance Engagements 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information and, in respect of greenhouse gas emissions included in the Sustainability Information, in accordance with Standard on Assurance Engagements 3410 Assurance Engagements on Greenhouse Gas Statements, issued by POA.

Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the Ethical Rules for Independent Auditors (including Independence Standards) (the "Ethical Rules") issued by the POA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. Our firm applies Standard on Quality Management 1 and accordingly maintains a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our work was carried out by an independent and multidisciplinary team including assurance practitioners, sustainability and risk experts. We used the work of experts, in particular, to assist with determining the reasonableness of Group's information and assumptions related to climate and sustainability risks and opportunities. We remain solely responsible for our assurance conclusion.

Summary of the Work we Performed as the Basis for our Assurance Conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the Sustainability Information, we:

- Inquiries were conducted with the Group's key senior personnel to understand the processes in place for obtaining the Sustainability Information for the reporting period
- The Group's internal documentation was used to assess and review the information related to sustainability;

- Considered the presentation and disclosure of the Sustainability Information.
- Through inquiries, obtained an understanding of Group's control environment, processes and information systems relevant to the preparation of the Sustainability Information, but did not evaluate the design of particular control activities, obtain evidence about their implementation or test their operating effectiveness;
- Evaluated whether Group's methods for developing estimates are appropriate and had been consistently applied, but our procedures did not include testing the data on which the estimates are based or separately developing our own estimates against which to evaluate Group's estimates;
- Obtained understanding of process for identifying risks and opportunities that are financially significant, along with the Group's sustainability reporting process.

The procedures in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

PwC Bağımsız Denetim ve
Serbest Muhasebeci Mali Müşavirlik A.Ş.

Ali Yörük, SMMM
Sorumlu Denetçi

İstanbul, 14 Ağustos 2025

TURKISH AIRLINES | Tomorrow On-Board