



**FRAPORT TAV  
ANTALYA TERMİNAL İŞLETMECİLİĞİ A.Ş.**



**COMPANY CARBON REPORT  
2009-2023**

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## Preface






Climate Change is one of the most important environmental challenges of this century. In 2009, our country assumed responsibility by signing the Kyoto Protocol and signing the Paris Climate Change Agreement in order to protect the climate by reducing of emissions of greenhouse gases. According to the latest statistical data 16% of total greenhouse gas emissions from the transportation sector, while 2-3% of this ratio is due to the aviation sector.

We are as Fraport TAV Antalya Terminal Management (FTA) committed to protect the Climate. With our responsive widening policy; Antalya Airport started the accreditation process in August 2009 and was accredited for Level-1 “Mapping” in 2010. Antalya was then accredited with Level-2 “Reduction” for the measures described in the Carbon Management in 2011. In one year time (2012) achieved the Level-3 “Optimization” by developing stakeholder engagement plan and reduced the emission. The Company renewed the Level-3 certificate for 2013 and 2014. In 2015 decided to offset of the entire Scope 1 and 2 emissions. Due to pandemic situations the Neutrality 3+ Level certificate extended with untill May 2023. Integrating the carbon emission management process with the 2050 decarbonization target is an important strategy for Fraport TAV.

The total emission of the airport is analyzed, a very important part is caused by aircraft movements, partly by passenger surface transportation, partly by Terminal Operations activities (FTA), and a small part by ground handling vehicles and personnel transportation. FTA is shared 4% of total emission at the Antalya Airport. Although there have been minor changes in FTA’s emission sources over the years, 78% of carbon emissions come from purchased electricity consumption, 17% from electricity consumption produced by Trigen, 3% from gases and the remaining 2% from process emissions.

## Basic Principles for Carbon Reporting

The basic principles which are defined by ISO 14064 standards are implemented in the company.

-  Relevance
-  Completeness
-  Consistency
-  Transparency
-  Accuracy

## Long Term Targets



**To develop Net-Zero Carbon policy for 2050.**



**To reduce each year CO<sub>2</sub> emissions by the end of 2026.**



**To produce our own electricity by using friendly environment sources**



**Efficient process management in light of FTA CMP**

## FTA Commitment- Policy and Objectives

FTA is committed to reduce own and stakeholders' carbon emission. The top management and all team members at FTA has been aware of the threats posed by climate change for some time, but have been equally aware of the inherent opportunities available from engagement in high quality carbon management. Besides, FTA always to be active in encouraging emissions' reductions to the third parties.

FTA has built on three milestones of its carbon emissions policy. According to our policy, carbon targets have been defined as the *Long, mid* and *Short* term.

- a) To reduce direct (Scope 1-2) emissions and avoid the generation of additional CO<sub>2</sub> emissions as a result of company activities
- b) To make collaboration with stakeholders to reduce indirect (Scope-3) emissions,
- c) To achieve Zero Carbon (Carbon Neutrality) and final strategic objective is decarbonization in 2050.

FTA has developed sub-plans and programs to achieve the goals. An example of good practice can be given as; FTA has protected 98,000 MWh of electricity from the green tariff until 2026.

FTA is aware of the targeted management of CO<sub>2</sub> emissions and appropriate monitoring are a prerequisite.

To produce electrical energy with sources that cause the least emission in order to make a sustainable carbon management, to purchase the needed energy from renewable sources. To use new technology products to manage energy in the most effective way, to prioritize energy saving projects, to reduce water consumption, to effectively manage the waste water treatment system, to increase recycling, to fly economy class during personnel business trips. Preferring the use of electric vehicles in airport transportation and air-side operations. Also cooperation with stakeholders, leadership of sectoral foundations.

## FTA Accreditation Process

### *Determination of the Carbon Sources and Responsibilities*

**The Greenhouse Gas Protocol (GHG Protocol) defines emissions as direct or indirect.**

Direct emissions, are owned or controlled by the reporting entity. Indirect emissions are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity. FTA scope 1, scope 2 and scope 3 emissions are reported in the ISO 14064-1 standard format.

### Mid- Short Term Targets



**To reduce scope 1-2 CO<sub>2</sub> emission per pax by %1 in 2023 compared to 3 years average**



**To reduce electricity consumption %4,5 compared 2022**



**To produce 25% of total electricity generation with TRIGEN in 2023**



**To perform 2% improvement for recycling of total waste.**



**To revise stakeholders engagement plan to reduce Scope 3 emission**

FTA categorized these direct and indirect emissions into three broad scopes.

#### ***Scope 1***

- Stationary sources
- Onsite power generation–Trigen Power Plant- uses NG
- Heating and cooling energy
- Refrigeration leaks
- Onsite waste water treatment
- Ground vehicles (Own car onsite)

#### ***Scope 2***

- Purchased electricity (Tenants-DHMI excluded)

#### ***Scope 3***

- Aircraft movements (ATM) ICAO Airport Air Quality Guidance Manual (Doc No. 9889)
- Business travel
- Passenger access
- Ground vehicles (Ground handlings, catering, fuel companies..etc)
- Airport Staff access
- DHMI fire exercise
- Other CO<sub>2</sub> emission sources

All these sources' data are collected systematically and insert to the model to calculate emissions by scopes.

### ***Carbon Footprint Mapping***

Carbon mapping is the act of identifying the sources of carbon emission caused by the activities of the enterprise and calculating the total amount of emission. Carbon emission is calculated with respect to the GHG (sera gases) ISO 14064 standard. The yearly carbon emission that is produced as a result of FTA's activities is obtained both as an absolute value, and as a relative ratio. “**Unit ton**” is used when the CO<sub>2</sub> emission is calculated in absolute value; whereas “**% kg per pax**” is used for relative ratio.

In order to calculate the emission rate that is output due to our company's tasks and responsibilities rising from the managerial contract the sources are clustered under 3 scopes.

### ***Carbon Footprint Report (CFR)***

The "Carbon Footprint Report" (CFR) is prepared each year within the scope of ISO 14064-1 and ACAS guiding document and it is verified according to ISO 14064-3 by means of an independent audit firm in every year. The inputs of the report include all the following data; emission-causing energy consumption which is in project scope, emission rates created by air conditioning (heating/cooling), waste decomposition and waste water treatment plants, material usage, business trips of employed personnel, vehicles used

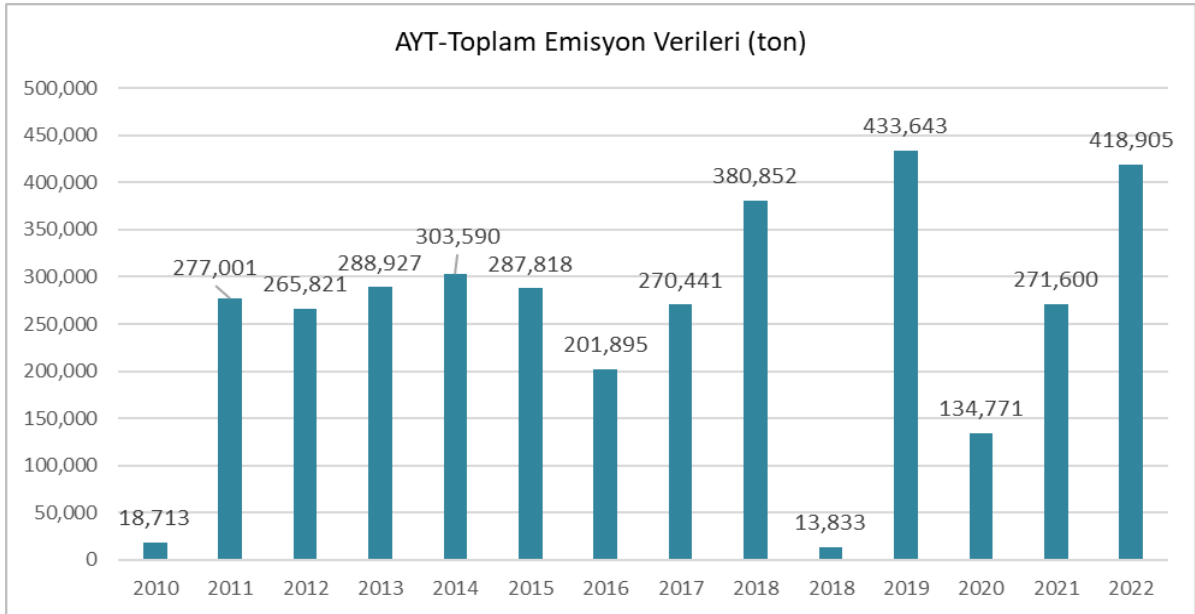
for transferring to/from airport, fuel consumption of company vehicles. The ACI ACAS guiding document is the main reference when preparing the CFR.

## Carbon Management Plan (CMP)

The “Carbon Management Plan” (CMP) is that prepared as one of the requirements of ACA Program Level-2 is revised in every three years. Verification is performed each year within the scope of the newly revised (in 2022) ACA Program. The company draws the outline of handling energy management, decreasing carbon emission; cooperating with other stakeholders, and defining short-term, mid-term and long-term carbon targets. The CMP preparation is extensively described in article 2.5 of the ACI ACAS guiding document. FTA CMP has been prepared and shared with partners.

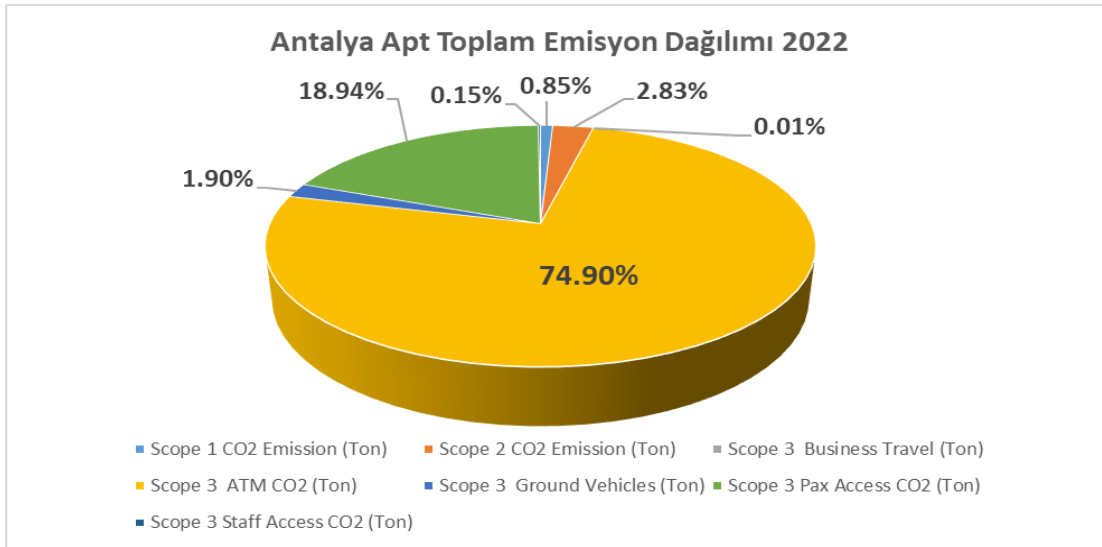
## Antalya Airport's Yearly Emission Data

Since the organization started its total emission reporting in 2013, the **Graph 1** includes the total emission data for the years 2013-2021 in Antalya Airport. While the total emission at Antalya Airport was 356,332 tCO<sub>2</sub> in 2013, it was 433.643 tCO<sub>2</sub> in 2019 and it was 418,905 tCO<sub>2</sub> in 2022. The main reason for the emission amount seen in the graph is the changes in the number of aircraft movements.



Graph 1

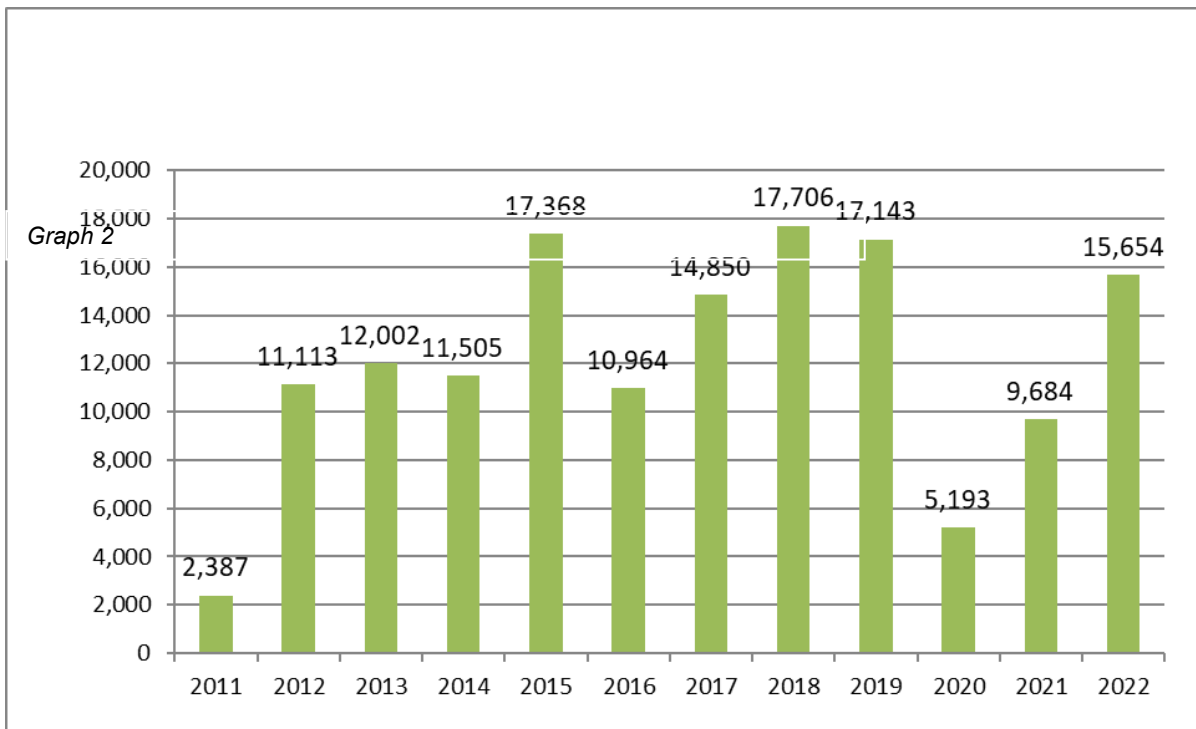
**Graph 2** demonstrates among the Antalya Airport's entire CO<sub>2</sub> emissions in 2022 is 75% comes from the operation of aircraft (taxi, takeoffs and landings as well as use of APUs), 19% of total emission comes from passenger surface access, 2% comes from staff access and ground vehicles' fuel consumptions. The rest 4% of total CO<sub>2</sub> emission comes from activities of FTA (scope 1 + 2). This 4% emission resulting from FTA activities has also been analyzed in terms of its sources and reduction plans have been made.



Graph 2

## Stakeholders Engagements and Scope 3 Emission Reduction

FTA has clearly demonstrated its commitment to widening the scope of its carbon management programme to include stakeholders at the airport since its initial Stakeholder Engagement Plan was developed in 2011 and revised in 2022. As indicated in Graph 3 the saved CO<sub>2</sub> emission improved year by year comparison the departed aircraft. The Graph 3 shows how much CO<sub>2</sub> removed from the atmosphere by this way. In the beginning (2011) of the project 2,387 tCO<sub>2</sub> was saved by using the 400Hz terminal facilities, 17,143 tCO<sub>2</sub> was saved in 2019 and 15,654 tCO<sub>2</sub> was saved by using the facilities in 2022. Thanks to FTA **Bridge Package Project** to decrease of aircraft emission during the ground time. This example is good practice to demonstrate how we are reducing scope 3 emissions with our partners.



Graph 3

In scope of our Stakeholder Engagment Plan FTA has identified to do actions to reduce carbon emission in colloborative ways with airlines, ground handling companies, aircraft re-fuelling companies, staff and pas-senger access bus providers. Besides, has been developed training program for FTA employees and third party staff.

### **CO2 Reduction Implementations at FTA**

- Lighting, heating and cooling systems work by editing the values of working hours are tracked from the automation system.
- Natural gas with the least CO2 emission potential is used in the production of electrical energy with Trigeneneration power plant.
- A plan to supply electrical energy from the green tariff was made.
- Heating and Cooling on a regular basis by measuring the energy loss is prevented.
- LED used for Lighting
- Light sensors are used,
- Fuel consumption is monitored from the automation of systems. Operational planning is an important tool.
- Energy Management Team has been set to walking check and developed saving projects.
- The control of chimney emissions and filters are done periodically.
- All existing monitors in the company had exchanged with more saving once.
- Public monitors are used in save modes and love energy consuming.
- FTA provide the access facilities to employees. In addition, FTA offers public transportation to all employees. Only allowed to use euro diesel on these buses.
- The Waste Water Treatment System is operated with full efficiency. pH value of effluent water is measured every day and its laboratory analysis is conducted monthly basis.
- Waste Management Plan is prepared to provide recycling efficiency.
- Terminal operating systems are established as a tool for energy saving.
- Effective periodic maintenance is implemented for all existing systems.
- Training and social activities is a continuous process in order to improve environmental awareness.

Respectfully Yours,

Antalya, 01.04.2023

Dr. Musa GÜNGÖREN

Quality Manager