



PRISHTINA INTERNATIONAL AIRPORT "ADEM JASHARI"
LIMAK KOSOVO INTERNATIONAL AIRPORT J.S.C

CARBON FOOTPRINT ANNUAL REPORT 2020



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1. INTRODUCTION

Due to the pandemic that started in 2020 and still going, everything including emissions sources were directly affected resulting in extraordinary circumstances. Considering this, Airport Carbon Accreditation decided to not include this year's emissions data for calculation and/or further achievements.

Therefore, this report presents carbon emission data of 2020 and is only for internal information and use. The methodologies used are the same as in previous reports, all in accordance with ACA Guidance and GHG emissions programs that we follow and work with.

By continually measuring the GHG emissions emitted through our operations, we continue to develop and improve our carbon management strategy and identify new opportunities for carbon reduction. Thus demonstrating commitment and effort for a healthier environment and a greener airport. Pandemic positively impacted on the environmental aspects, by reducing the emissions through stopping some of the activities and developments, but at the same time causing a chaotic situation.

1.1 Reporting period

The reporting period covers the detailed carbon emissions data from 1 January 2020 to 31 December 2020, compared to the previous year figures as well as to a three-year rolling average, respectively 2017-2018-2019.

2. ORGANIZATIONAL AND OPERATIONAL BOUNDARIES

2.1 Organizational Boundaries

Limak Kosovo International Airport's organizational and operational boundaries and structures remain the same. For any further details please refer to the previous report Carbon Footprint Report 2019.

If any change occurs within Limak Kosovo International Airport's footprint boundaries and/or sources, there will be an immediate update.

3. CALCULATION METHODOLOGY AND SCOPE EMISSIONS

Limak Kosovo International Airport's Greenhouse Gas emission footprint is calculated using the guidance of Greenhouse Gas Protocol (<http://www.ghgprotocol.org/>) and all the process is done under the guidance manual: Airport Greenhouse Gas Emissions Management (<http://www.aci.aero/Publications/Full-Publications-Listing/Guidance-Manual-Airport-Greenhouse-Gas-Emissions-Management>) and Airport Carbon Accreditation Guidance Document Issue 11 (<http://www.airportcarbonaccredited.org/>).

Based on their emission sources, GHG emission calculations are divided into three parts: Scope 1, Scope 2 and Scope 3.

3.1 Scope 1 emissions and calculation method

Direct emissions from sources that Prishtina International Airport owns or controls as;

➤ Stationary Sources

- Heating facilities
- Emergency generators
- Rescue Firefighting Service exercises

- **Mobile Sources**
 - Transport (landside and airside operations) for every unit
- **Process Emissions**
 - Water management/consumption
- **Other**
 - Leaks from plants/other gases
 - Wastewater treatment system

Entire calculations covering scope 1 emission sources are measured by Greenhouse Gas Protocol Calculation Tools.

Worth restarting is that wastewater treatment system emissions are not calculated because of the minor amount of emissions, while refrigerants (compounds used for refrigeration and air condition) are taken in account just in case of leaks.

3.2 Scope 2 emissions and calculation method

Greenhouse gas emissions from purchased electricity, where emissions are generated externally but attributed to energy consumption at the airport.

The electricity of Kosovo relies on coal-fired power plants (97%). KEDS (Kosovo Energy Distribution Service) is the only licensed distributor and the regulation of activities in energy sector in Kosovo is the responsibility of the Energy Regulatory Office. For this reason, Limak Kosovo International Airport purchased electricity is calculated only in location-based.

The purchased electricity is calculated manually because of Kosovo missing as a region at the table. Kosovo electricity emission factor data is taken from The International Energy Agency (<http://www.iea.org>).

All of these tools are checked periodically in order to prevent errors of emission calculations, especially emissions factor of electricity in Kosovo to avoid the possible mistakes. No changes have been observed according to emissions factors for Kosovo therefore LKIA continues to calculate the purchased electricity on a location-based method.

3.3 Scope 3 emissions and calculation method

All other indirect emissions from other sources, not controlled but related to the activities of the airport as:

- Flights/LTO Cycle
- Employee transport/private cars
- Employee transport/bus
- Cargo activities/Export Activities
- Municipality Waste
- Passenger & Visitor Car
- Business travel
- Re-sold Electricity
- Re-sold Water
- Construction Activities

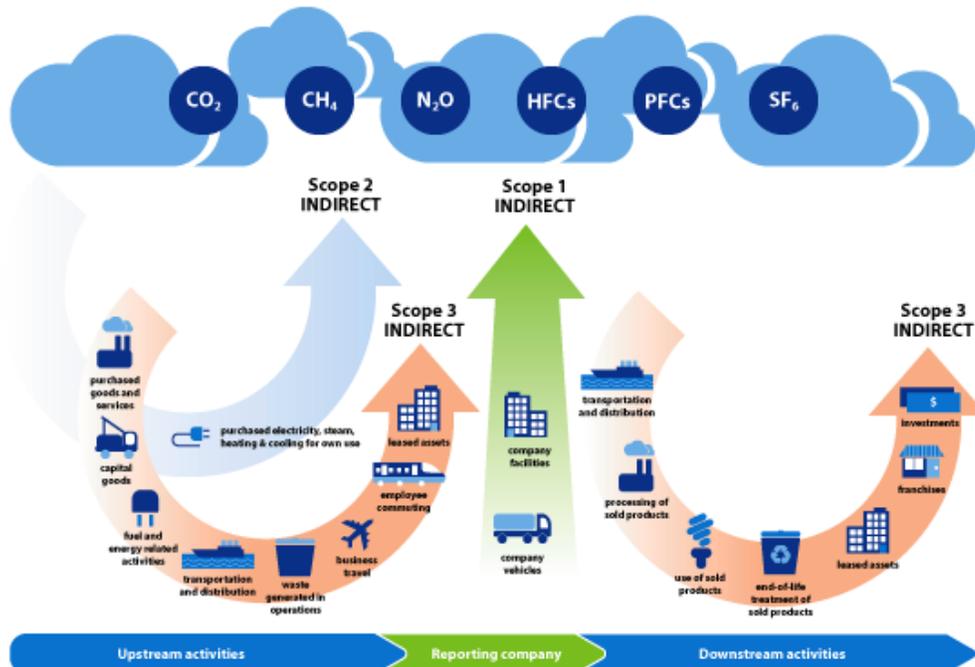
Including different emission sources, for scope 3 emissions are used different calculation methods such as GHG Protocol, ICAO Emission Calculator and ACERT Carbon Emission Calculation Tool.

- The ICAO Carbon Emissions Calculator allows us to estimate the emissions attributed to air travel, precisely our business travel emissions. It is simple to use and requires only a

limited amount of information the methodology applies the best publicly available industry data to account for various factors such as aircraft types, route specific data, passenger load factors and cargo carried.

- For flights or emissions generated during approach, taxi and ground idle (in), taxi and ground idle (out), take-off and landing, Prishtina International Airport uses the ACERT Carbon Emission Calculation tool with option of detailed aircraft data based on annual movements.
- Greenhouse Gas Protocol Tools are used for employee transport and service bus based on interviews and checklists that are made with employees for their travel method under Mobile Combustion Tool.
- Cargo activities emissions are also calculated under GHG Mobile Combustion Tool with the characteristics of Weight Distance (Freight Transport), based on the exported cargo data (tone Kilometer)
- Municipality waste is calculated under GHG Protocol Calculation Tool based on solid fossil as fuel type and used fuel municipality waste (non-biomass fraction).
- Number of passenger cars is calculated under GHG Mobile Stationary Tool, based on vehicle distance (road transport). According to Ministry of Infrastructure of Kosovo the most used fuel type is diesel, therefore we calculate our emissions based on passenger car – diesel type.
- External users for electricity and water consumption are calculated in the same way as for Scope 1 and Scope 2 emissions. Emissions are netted off Scope 1 and Scope 2 then be included in Scope 3.

Every calculation methodology is regularly checked for any update or change.



4. BASE YEAR

LKIA monitors and measures its carbon emissions since 2014, however the data needed and presented in this report includes the period from 2017 until 2020.

4.1. Data collection

Carbon emissions are analyzed and calculated separately for each scope because they include different emissions sources. Calculations include like-for-like comparison method for all scopes and according to three-year rolling average (2017-2018-2019) for scope 1 and scope 2 emissions. These methods help us to continuously improve our carbon management performance.

Scope 1

Emission Source	Units	Resolution	Calculation Method
Heating facilities	Liter (L)	By site, per month	GHG Protocol Tool
Emergency Generator	Liter (L)	By site, per month	GHG Protocol Tool
LKIA Transport	Liter (L)	By units, per month	GHG Protocol Tool
Water Consumption	Meter Cubic (m ³)	By site, per month	DEFRA Factor Emission
Rescue Firefighting Service Exercises	Liter (L) & Kilogram (Kg)	By site, per month	GHG Protocol

Scope 2

Emission Source	Units	Resolution	Calculation Method
Purchased Electricity	Kilowatt per hour (kWh)	By invoices, per month	International Energy Agency Factor Emission

Scope 3

Emission Source	Units	Resolution	Calculation Method
Flights/LTO Cycle	Aircraft data/ Annual movement	By aircraft movements, annually	ACERT Carbon Emission Calculation Tool
Employee transport (Private Cars)	Distance (Km)	Single figure	GHG Protocol Tool
Employee Transport (Bus)	Distance (Km)	Single Figure	GHG Protocol Tool
Cargo Activities/Export	Ton/kilometer		
Municipality Waste	Kilogram (Kg)		
Passenger & Visitor Car	Distance and number of cars	By site, per month	GHG Protocol Tool
Business Travel/Flights	Aircraft types, passenger load factors and cargo carried	By journey, per month	ICAO Calculator
Re-sold Electricity	Kilowatt per hour (kWh)	By site, per month	International Energy Agency Factor Emission
Re-sold Water	Meter Cubic (m ³)	By site, per month	DEFRA Factor Emission
Construction activities	Liter (L)	By construction site, by contractors	GHG Protocol Tool

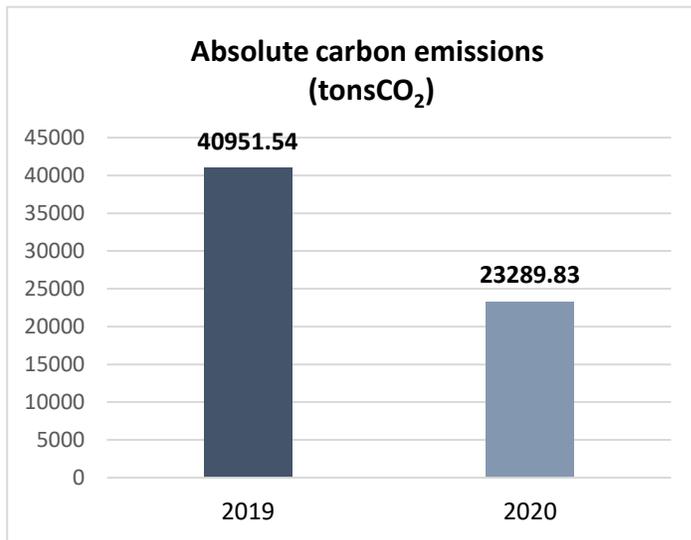
5. CARBON FOOTPRINT PROGRESS

Throughout the years there have been increases and reductions due to different indicators. This year because of the pandemic which started in March and is still going, carbon emission figures and values has deviated their linearity, in comparison to the previous years.

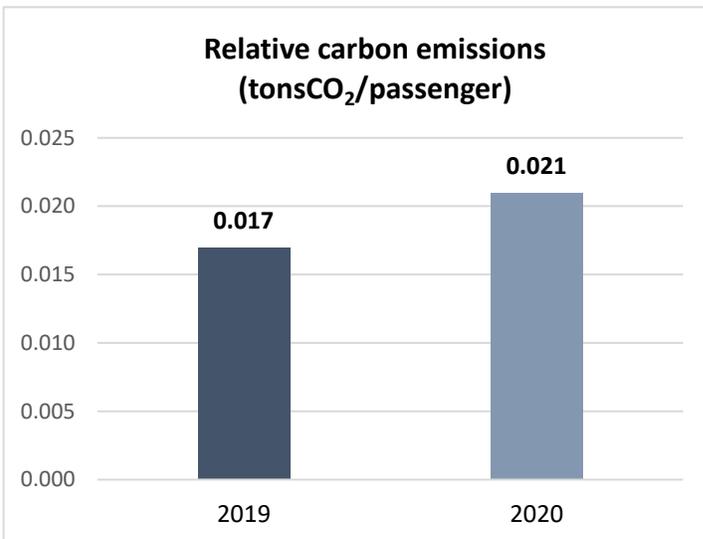
Carbon emission data covering all three scopes are presented below.

5.1 2019/2020 Three scopes data comparison

For absolute carbon emissions of scope 1, scope 2 and scope 3 with a *total 23289 tonsCO₂ emitted in 2020* we had a reduction by 43% compared to 2019 data. While for relative emissions (tonsCO₂/passengers) we had an increase by 23%.



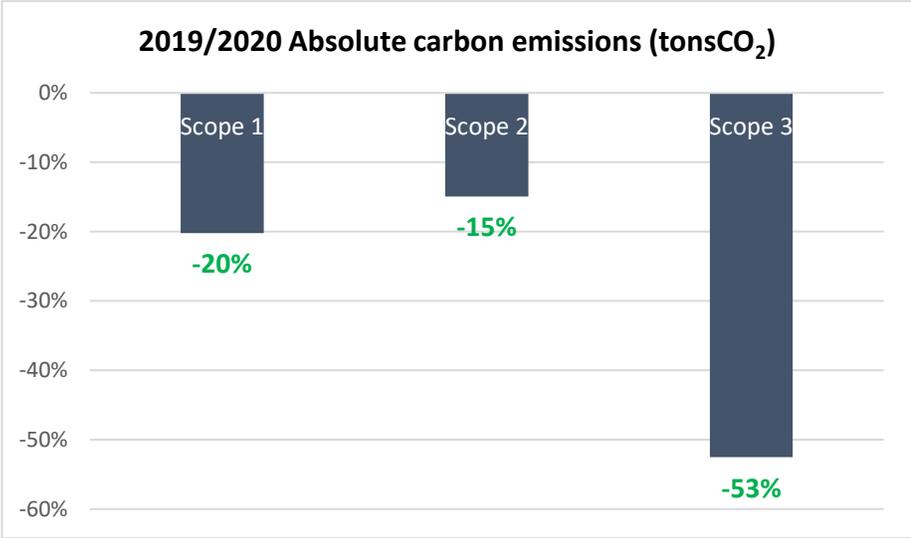
43% Reduction



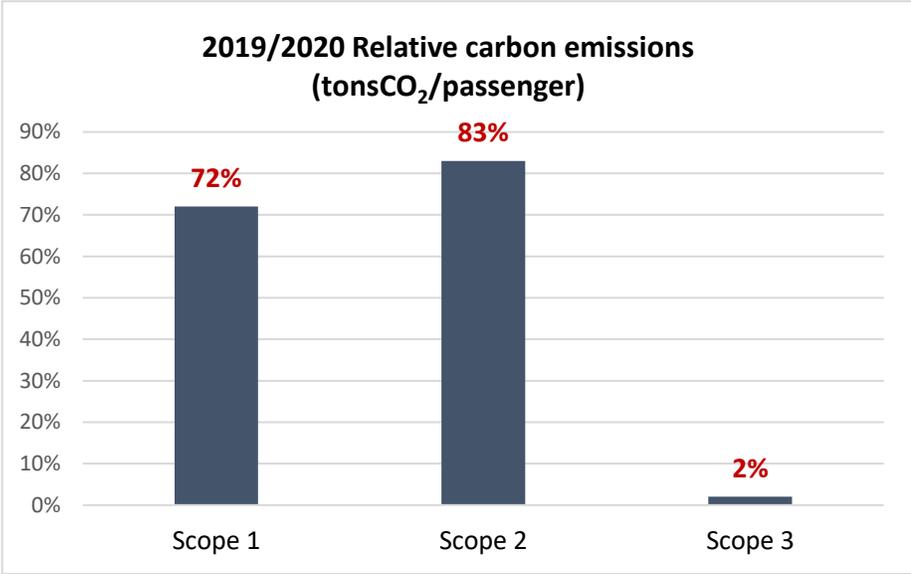
23% Increase



When we compare the 2020 absolute carbon emissions to the 2019 for each scope separately, there is a reduction in all of them as shown in the graphic below.



When we involve the passengers number into our values, for each scope separately there is an increase of emissions in 2020 compared to 2019. Worth mentioning is that the passengers number has been reduced by 53%.

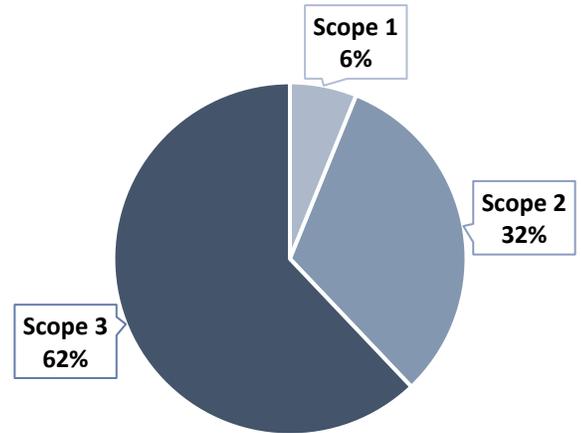
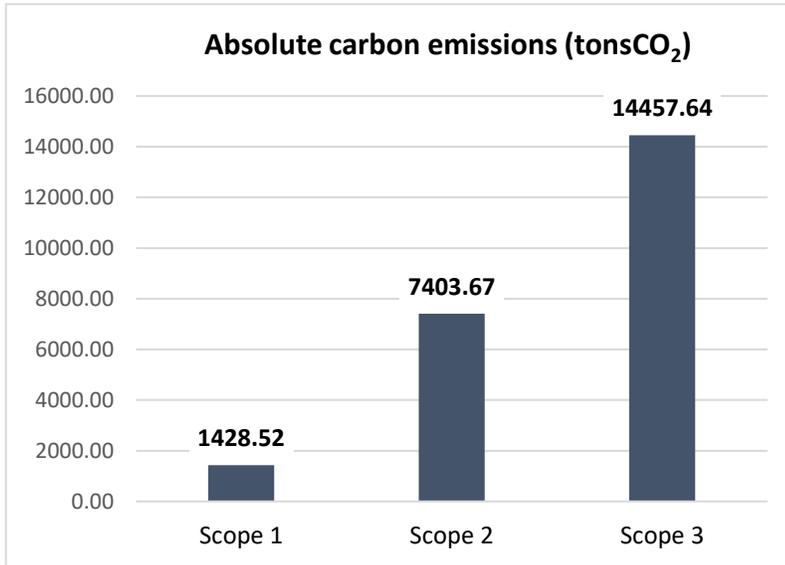


Something we must consider is that scope 1 among others presents heating and water treatment, and scope 2 presents emissions from purchased electricity which operate despite the change of passengers number to make sure airport is always available and full operative.

5.2 All scopes summary of 2020

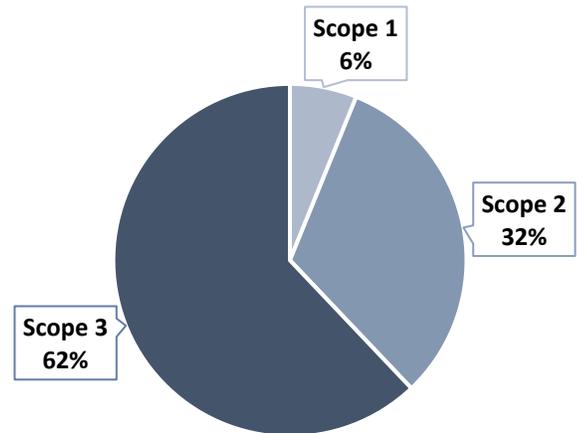
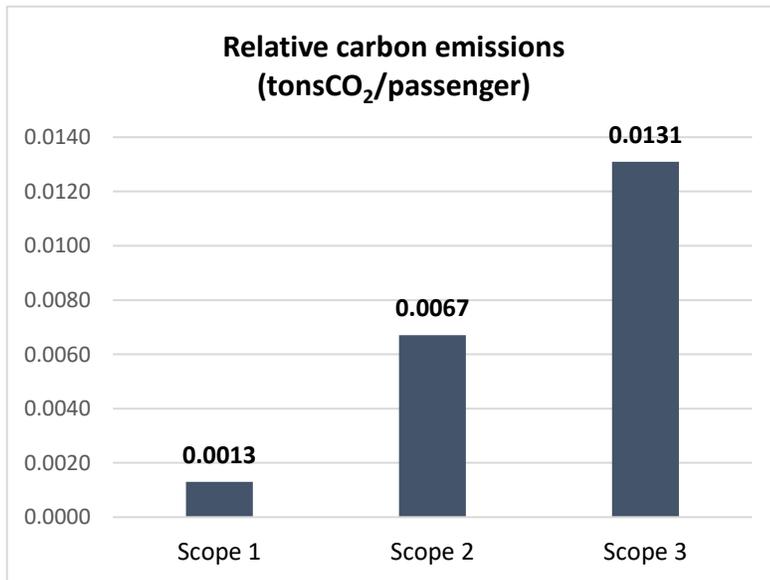
Absolute carbon emissions (TonsCO₂)

Scope 3 is responsible for the highest amount of carbon emissions at LKIA, while scope 1 is responsible for the lowest.



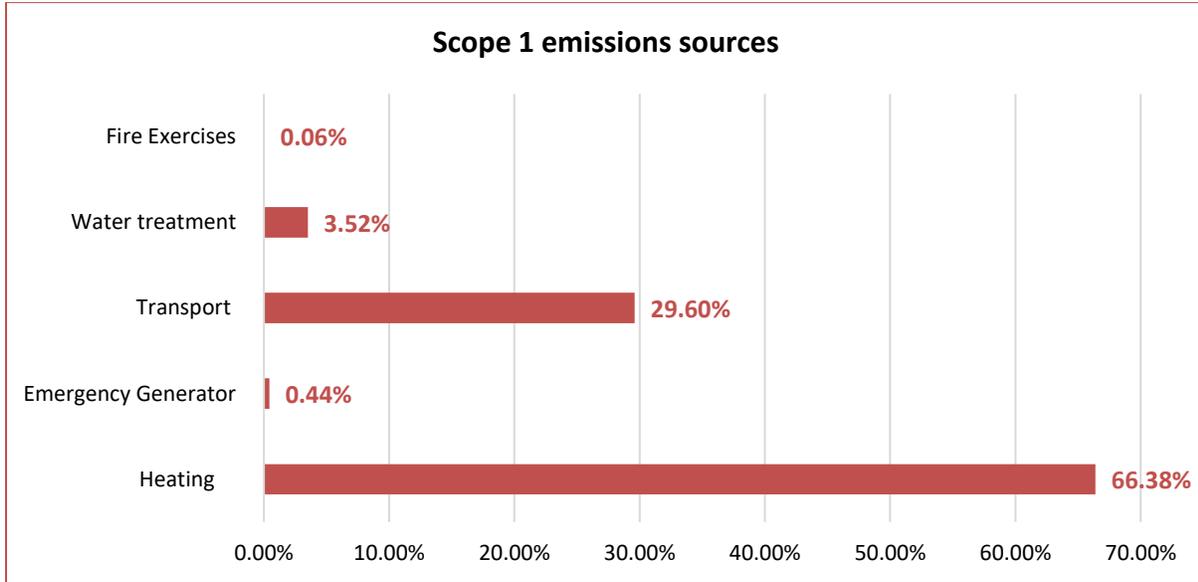
Relative carbon emissions (TonsCO₂/passengers)

As per absolute emissions, the same goes for the relative emissions. Scope 3 is responsible for the highest amount of carbon emissions, while scope 1 represents the lowest.



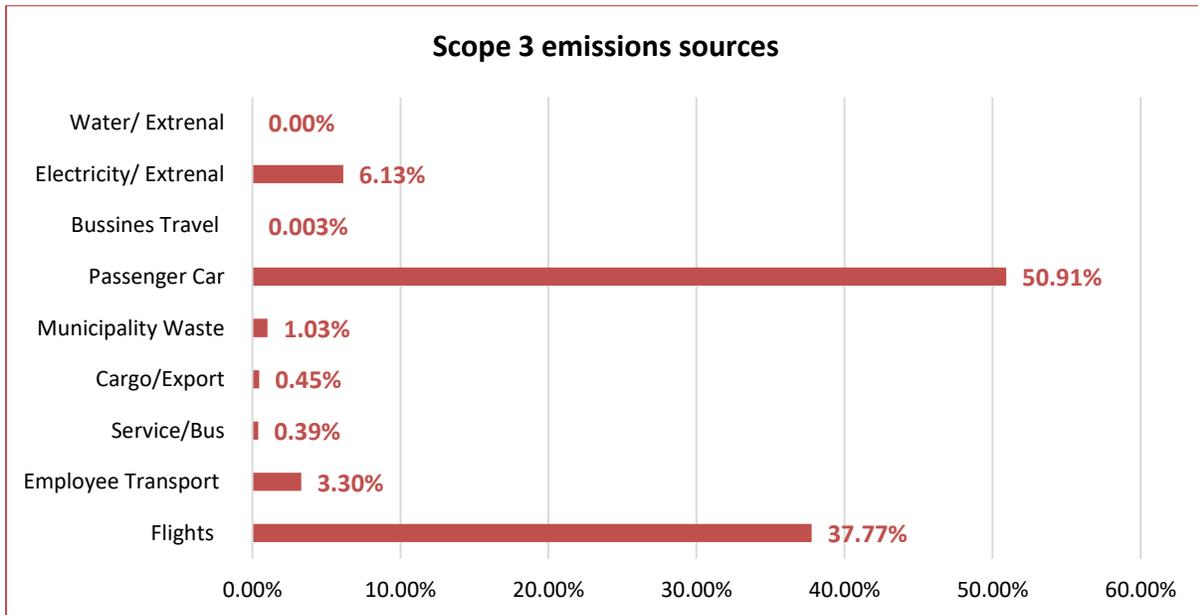
5.2.1 Scope 1 emissions figures by their sources

From a total of 1428.521 tonsCO₂, scope 1 carbon emissions are dominated by heating facilities with 66.38% and transport with 29.60%, while other scope 1 emission sources are minor.



5.2.1 Scope 3 emissions figures by their sources

Scope 3 emissions include different major sources that we do not control therefore we only monitor, advice and measure their emissions. From a total of 14457.64 tonsCO₂, scope 3 carbon emissions are dominated by passenger & visitor transport with 50.91% and landing & take-off cycle of aircraft (LTO cycle) with 37.77%, while other scope 3 carbon emission sources are minor.



5.3 Airport Carbon Accreditation calculation method

Based on ACA calculation requirements we compare the present year carbon emissions to the average of three-year rolling, respectively 2017-2018-2019. These analyses include only Scope 1 and Scope 2 figures because we can control and can act directly over them for any reducing possibilities.

Due to the pandemic, airport operations has stopped for a short time which resulted to the decrease of total absolute carbon emissions during this year.

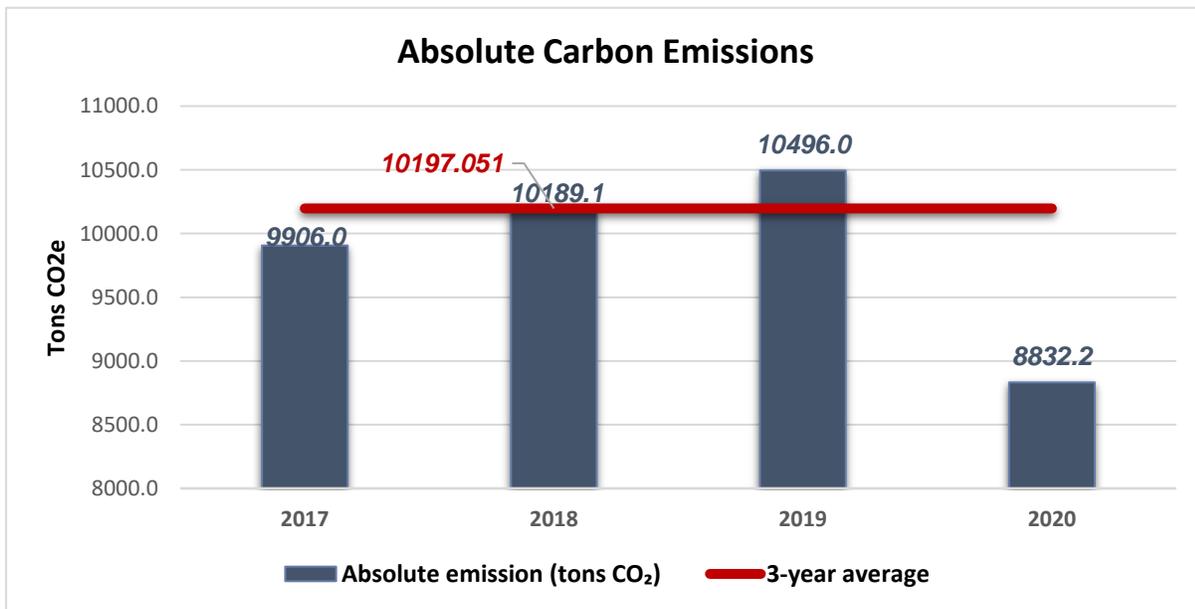
The detailed analysis are presented below:

The data of absolute carbon emissions for each year is:

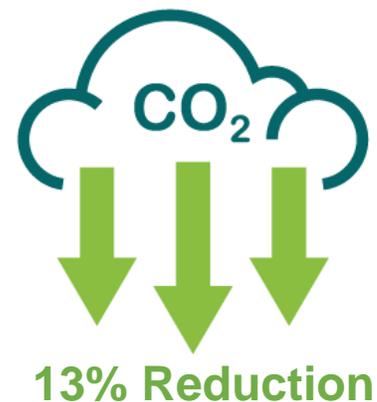
- **2017** corresponds for 9906.014 tonsCO₂e.
- **2018** corresponds for 10189.113 tonsCO₂e
- **2019** corresponds for 10496.025 tonsCO₂e.
- **2020** corresponds for the 8832.187 tonsCO₂e.

The average figure of 2017-2018-2019 absolute carbon emissions is:

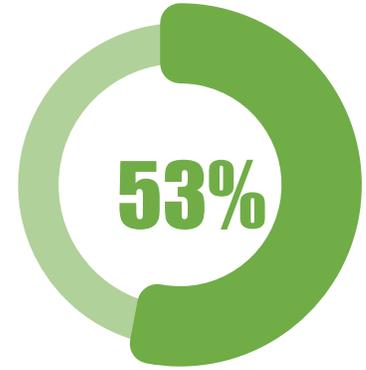
➤ **10197.051 tonsCO₂**



There is a *13% reduction* of 2020 absolute carbon emissions compared to the three-year average 2017-2018-2019 carbon emissions.



The number of passengers in 2020 respectively 1102016 passengers compared to 2019 respectively 2369767 passengers has been reduced by 53%.



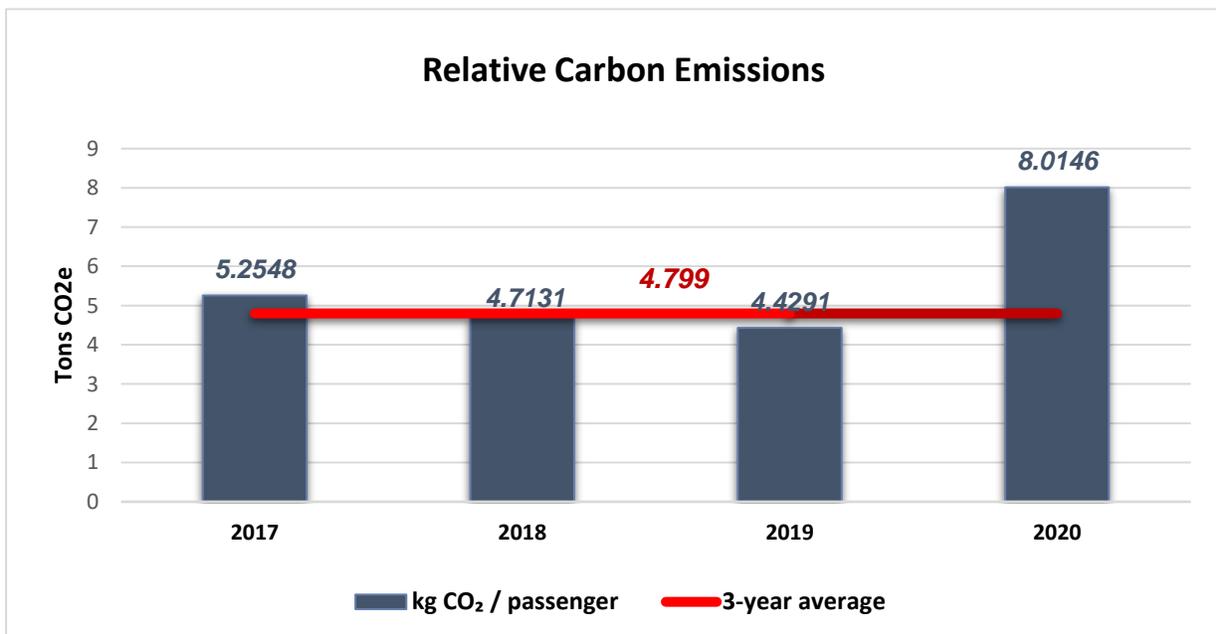
Relative carbon emissions are directly indicated by the number of passengers.

The data of relative carbon emissions for each year is:

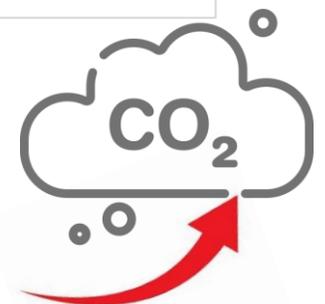
- **2017** corresponds for 5.2548 kgCO₂/passenger
- **2018** corresponds for 4.7131 kgCO₂/passenger
- **2019** corresponds for 4.4291 kgCO₂/passenger
- **2020** corresponds for 8.0146 kgCO₂/passenger

The average figure of 2017-2018-2019 relative carbon emissions is:

➤ **4.799 kgCO₂/passenger**



There is a 67% increase of 2020 relative carbon emissions compared to the three-year average 2017-2018-2019 emissions.



67% Increase

6. CARBON MANAGEMENT PLAN 2020 HIGHLIGHTS

Due to the lockdown, there was no new activity or initiative taken during this year, except the continuous ones as the replacement of broken lamps with energy efficient LED lamps and the replacement of broken computers with new laptops in cooperation with ICT unit. Since everything has halted, the objectives and targets will remain the same as the previous year.

One of the main objectives was the application for the Renewal of Level 3+ Neutrality Certificate from Airport Carbon Accreditation, which was impossible in 2020 and by their decision its validity period was extended until 5th August 2021.

The application for level 3+ Neutrality renewal continues this year as well.



6.1 Activities TO-DO

Considering the circumstances of not being able to achieve and/or complete our goals during 2020, all the objectives and activities that were set last year related to the environment protection, awareness and enhancement, will remain the same for 2021 as well.

- Continuously raise environmental awareness through email, awareness trainings and meetings, joint initiatives, stickers, etc.
- Perform site visits within LKIA area including checking water tap sensors, lightning time sensors, etc.
- Implementing Environmental Objective and Targets 2021
- Implementing Environmental Calendar 2021 and improving it with new activities.
- Monitoring and implementing all requirements according to ISO 50001 and Airport Carbon Accreditation.
- Apply for Level +3 Neutrality Renewal.