



Corporate Carbon Footprint

A summary and analysis of GHG emissions
for the International Tennis Federation

For the period

January 2021 to December 2021

Undertaken by
AQ Green TeC for ITF

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Introduction



Introduction

Message from the International Tennis Federation

Our role as the governing body of world tennis requires us to be aware of the impacts of the sport and how these are shaping the way that we play, compete, create and enjoy the game.

The International Tennis Federation (ITF), in consultation with external consultants at AQ Green TeC GmbH, has developed an environmental strategy which is aimed at understanding and measuring the impacts of the organisation and its activities, and playing a leadership role in the reduction of negative impacts across the value chain of tennis. This includes important baseline exercises such as the measurement of our Scope 1, 2 and 3 Greenhouse Gas (GHG) emissions.

Climate change is the most material sustainability issue for our planet and its people and is a priority focus area within the ITF environmental strategy and an important element of the ITF's activities. Our carbon and climate plan has been developed to be aligned with global best-practice and industry standards, frameworks and principles, such as those advocated by the Greenhouse Gas ("GHG") Protocol, Task Force on Climate-Related Financial Disclosures ("TCFD"), the Sustainable Development Goals ("SDGs"), United Nations Framework Convention on Climate Change ("UNFCCC") and the International Olympic Committee ("IOC") sustainability strategy.

This document is a summary of the ITF's GHG inventory and our inaugural carbon footprint report.

As we develop an understanding of our immediate impacts, we look forward to working with our stakeholders to influence their participation and impact. This includes 210 national and six regional associations that make up the ITF's membership.

Headquarter address:

International Tennis Federation
Bank Lane, Roehampton
London, SW15 5XZ, United Kingdom

AQ Green TeC GmbH

AQ Green TeC (AQGT) provides GHG emissions management services to support companies and their stakeholders to develop and execute an integrated climate strategy.

AQGT has provided the ITF with Scope 1, 2 and 3 GHG emissions measurement services. This carbon footprint report has been compiled by using data provided by the ITF and calculations from the Veriport carbon measurement system.

Organisational Boundary



Organisational Boundary

The organisational boundary for this report has been identified using the Operational Control approach, where the organisation accounts for all GHG emissions from the entities and the activities under its operational control.

Facilities under the ITF's control:

Administration offices located in Roehampton, London, United Kingdom.

Operational Boundary

The GHG Protocol requires that companies account for and report all Scope 1 and Scope 2 GHG emissions but gives companies flexibility on whether and how to account for Scope 3 emissions.

The GHG Protocol however advises that 'material' Scope 3 emissions should form part of the GHG inventory. Since Scope 3 emissions can arise from a variety of sources, only significant sources that can be directly or indirectly influenced by an organisation and that are accurately quantifiable should be included in the GHG inventory, so called 'material Scope 3' emissions.

Whilst generally not the organiser at ITF sanctioned events, the ITF is responsible for sanctioning tennis events from time to time. It was decided to exclude these events for this inaugural Corporate Carbon Footprint. The ITF will expand its measurement boundary over time, to include events over which it exercises control, in line with its carbon strategy.

The ITF's Corporate Carbon Footprint includes Scope 1, 2 and material Scope 3 emission sources from the following activities:

Scope 1 - Direct Emissions

- Fugitive Emissions
 - Air conditioning units
- Mobile Fuels
 - Diesel consumption in organisation owned vehicles

Scope 2 - Indirect Emissions

- Grid purchased electricity
- Purchased district heating

Scope 3 - Indirect Emissions

- Business Travel:
 - Air travel
 - Hotel stays
 - Taxi
 - Train
- Downstream Transportation & Distribution:
 - Freighting goods (parcel deliveries shipped)
- Employee Commute (employees' travel between home and work):
 - Car
 - Bus
 - Train
 - Motorbike
 - Taxi
- Purchased Goods & Services:
 - Water supply
 - Paper and board
 - Food and drink
- Waste Generated in Operations:
 - Recycled paper and board
 - Recycled glass
 - Commercial, dry mixed recycling
 - Household, mixed residual waste

Reporting Period

January 2021 to December 2021.

This is the first year that the ITF has compiled a GHG inventory. 2021 will act as the base year, however, given that 2021 included periods where the ITF office was empty (due to government-imposed Covid-19 lock-down) and partially occupied (also for Covid-19-related reasons), the base year will be reviewed and re-set if necessary.

Reasons for Measuring & Managing GHG emissions

Sustainability is part of the ITF's value system and is, therefore a part of the organisational strategy. The ITF intends to lead by example and drive awareness and behaviour change towards reducing the ITF's environmental impact. It is only through measurement that the ITF is able to set and manage activities in line with targets to reduce environmental impact and associated carbon producing activities.

Emissions Reporting Standards

This GHG inventory, or carbon footprint, has been prepared by AQGT with and on behalf of the ITF using the norms and standards determined in the Corporate Standard of the GHG Protocol.

The GHG Protocol is a partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). It is the most widely applied international accounting tool for quantifying and managing GHG emissions.

Verification of Emissions

AQGT made use of the GHG Protocol Corporate Standard approach to GHG emissions calculations which required the gathering (or estimating) of carbon activity data, as applicable, after Scope 1, 2 and 3 emission sources were identified.

Quantities of materials were provided (and internally verified) by the ITF team to the greatest degree possible and where data was lacking, estimates were used with assumptions interrogated. The ITF was satisfied that estimates and assumptions were reasonable and accurate and does not believe that further external, third-party verification is required at this time, however the organisation will consider verification as it progresses on its journey of carbon measurement and management.

Emissions Overview



Emissions Overview

ITF's Carbon Footprint for the 2021 reporting period: **1358.786 tonnes CO₂e**.

Intensity

Intensity reporting makes it possible to accurately compare business divisions and can be used to track reductions in relative emissions, in spite of changes in business operations. It is an important tool for benchmarking over time and for comparing divisions.

Emission intensities have been calculated for the ITF based on tonnes CO₂e per full-time employee. Additional intensity metrics will be considered in future.

The intensity metric for the 2021 period is **11.230 tCO₂e** per employee.

Emissions by Scope

As is typical for a carbon footprint relating to administrative offices and business activities, the largest contributor to the ITF's Carbon Footprint is Scope 3 emissions which equate to 92.63% of overall emissions at 1,258.589 tCO₂e. This is mostly from business travel activities, specifically air travel. This is followed by Scope 2 emissions at 6.62% or 89.971 tCO₂e.

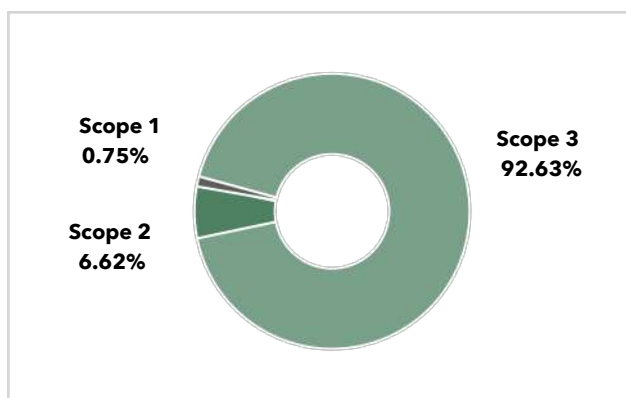
Table 1

2021	tCO₂e
Scope 1	10.226
Scope 2	89.971
Scope 3	1,258.589
Total	1,358.786

**Differences may be due to rounding.*

Graph 1

Emissions by Scope 2021



Emissions by Categories

Scope 1

Scope 1 emissions are direct GHG emissions generated from sources owned or controlled by the organisation which combust fuel, in either mobile or stationary equipment, and sources which emit refrigerants and other gases.

The ITF reported on diesel consumption from their vehicles (mobile combustion) and R410a gas from office air-conditioning use (fugitive emissions).

Total emissions from combustion of diesel are 0.412 tCO₂e and total fugitive emissions from R410a gas are 9.814 tCO₂e. Refrigerant gases, like those used in air-conditioning units, have a very high global warming potential and therefore even small quantities equate very high CO₂e emission.

Scope 1 emissions contribute only 0.75% or 10.226 tCO₂e to the ITF's total GHG inventory.

Table 2

Scope 1 GHG emissions (tCO ₂ e)	10.226
Fugitive Emissions from Air Conditioning	9.814
Mobile Combustion	0.412

Scope 2

Scope 2 emissions are indirect GHG emissions from the consumption of grid-purchased electricity and district heat or steam purchases.

The ITF reported on consumption of both grid-purchased electricity and district heat and steam purchases for heating.

At 6.62% or 89.971 tCO₂e, Scope 2 emissions are the second-largest contributor of the ITF's total emissions.

The largest contributing category to Scope 2 emissions is the emissions from purchased heat and steam at 77.68% or 69.892 tCO₂e of total Scope 2 emissions. Emissions from grid purchased electricity contribute 22.32% or 20.079 tCO₂e of total Scope 2 emissions.

Table 3

Scope 2 GHG emissions (tCO ₂ e)	89.971
Purchased Heat and Steam	69.892
Purchased Electricity: Location Based	20.079

Scope 3

The largest contributor to Scope 3 emissions is business travel, which contributed 94.49% or 1,189.251 tCO₂e, which make up 87.52% of the ITF's total CO₂e emissions.

Business travel is made up of business flights, travel by taxis and train and hotel stays. Emissions from these activities totalled:

- Flights: 909.658 tCO₂e, 76.49% of business travel emissions
- Hotel stay: 260.994 tCO₂e, 21.95% of business travel emissions
- Taxi travel: 17.960 tCO₂e, 1.51% of business travel emissions
- Train: 0.639 tCO₂e, 0.05% of business travel emissions

The second largest contributor to Scope 3 at 3.23% or 40.701 tCO₂e, are the emissions associated with employee commuting.

Emissions from employee commuting are also 3% of overall GHG emissions for the ITF.

This highlights the large impact that travel and transportation activities associated with fossil fuel combustion have on the organisation's carbon footprint.

The ITF did indicate that business travel to and from Tokyo in 2021 was exceptional due to the Tokyo Olympic Games. Business travel is likely to fluctuate year on year depending on the number and location of events.

Table 4

Scope 3 GHG emissions (tCO ₂ e)	1,258.589
Business Travel	1,189.251
Employee Commuting	40.701
Purchased Goods and Services	27.523
Purchased Waste Generated in Operations	1.088
Downstream Transportation and Distribution	0.026

Emissions Overview



Recommendations

This is the first time that the ITF has compiled a GHG inventory and whilst in our view the organisation has done well to set course on this journey, the aim will be to improve the accuracy of data collected over time.

This can be achieved by:

- Putting systems in place to better collate actual consumption data thereby reducing the need to use estimations
- Assigning 1 or 2 persons in the organisation the role of / responsibility for collecting data
- Collecting and recording data using carbon management software
- Collecting data on a regular basis such as monthly, bi-monthly or quarterly

The boundary of this 2021 corporate carbon footprint is limited to The ITF head office operations only and therefore excludes any events, either owned or operated by The ITF. In order to improve alignment with the GHG Protocol's principles of Control (or ownership) it is recommended that for 2022 onwards, The ITF includes any events that are either owned, controlled or directly managed by The ITF in its carbon footprint measurement and reporting boundary, for example, The Billie Jean King Cup.

The ITF should prioritise efforts to avoid or reduce its GHG emissions by introducing energy and resource efficiency policies and practices, particularly from a supply chain procurement perspective. The largest contributor to overall GHG emissions is business travel (flights) and given that this is a core activity of the ITF, careful consideration will be required for emissions avoidance and reduction initiatives. Some emissions reductions initiatives have been introduced, including an organisation-wide policy to promote video conference meetings.

The ITF can make a positive impact through a communications and awareness campaign within the organisation and has initiated this. The objective is to inspire and educate employees to reduce their own carbon emissions in their personal lives. This may not have an impact on the ITF's carbon footprint but will nonetheless contribute to a carbon conscious culture. Similar campaigns can also be communicated to external stakeholders in support of the ITF's objectives around industry leadership in the area of environmental sustainability.

Assumptions and Limitations

All data submitted by the ITF is assumed to be accurate, precise and complete unless otherwise stated. Data that could not be measured or collected from existing sources, were estimated according to the methodologies below. Further information regarding data collection limitations, assumptions and extrapolations is available on request.

Methodology

The methodology used to develop this GHG inventory is that of the GHG Protocol Corporate Standard (WRI & WBCSD, 2015).

All Scope 1 and 2 emissions as well as material Scope 3 emissions are reported as per the requirements set by the Corporate Standard.

The unit of measure is carbon dioxide equivalent (CO₂e) which include the gases:

- Carbon dioxide (CO₂)
- Methane (CH₄) and
- Nitrous oxide (N₂O)

Emission Factors

The emission factor dataset used is that of the United Kingdom Government's Department for Environment Food & Rural Affairs (DEFRA) 2021 Version 2.0. Unless otherwise indicated, emissions factors applied are derived from DEFRA. The DEFRA emissions factor database is generally considered one of the most comprehensive and reliable of its kind and is updated on an annual basis.

Location-based vs Market-based

The location-based method considers the consumption of electricity from an electricity grid using the average emissions intensity of that grid, namely the 'grid emission factor'.

The market-based method considers the purchase and consumption of electricity from supplier-specific alternative generation sources (e.g. wind farm), which might have a different emission factor from the regional electricity grid.

Scope 2 emissions for the ITF have been reported according to the location-based approach, where country specific grid emission factors have been used where possible.

Scope 1

- Data from fugitive emission were obtained from annual and/or routine maintenance and refilling of air-conditioning units
- Distances travelled were taken from vehicle odometers and the emission factor applied is of a passenger vehicle, medium size with a diesel engine for distance travelled in kilometres

Scope 2

- For grid purchased electricity the location-based emission factor for the United Kingdom was applied
- For heating, the district heat and steam factors were applied
- Above data was obtained from utility bills provided by the Bank of England Facilities Department

Scope 3

- Business travel data for flights, hotels and car rental were provided by the ITF's travel agent, Review Travel
- Flight emission factors with RF according to the different flight types were applied. With RF include the indirect effects of non-CO₂ emissions to capture the full climate impact of air travel
- The average European hotel accommodation emission factor was applied for hotel accommodation where the room night was not specified by country
- Employee commute data was collected via a questionnaire submitted to employees. Extrapolations were made to calculate total annual distances travelled for various modes of transport
- Water consumption data was provided in cubic meters from consumption invoices provided by the Bank of England Facilities Department
- The number of reams of A4 paper purchased was provided by the ITF and the total tonnage was calculated using the standard weight of 80g/m² for office paper
- Other paper and board data was not available, and the following estimations were made by the ITF
 - The weight of a pack of paper towels is 0.3kg, 1 pack used per week for 33 weeks of the year, allowing for only the working weeks of the year
 - The weight of a pack of toilet rolls is 1kg, average of 9 cubicles, 0.25 packs per cubicle per week, 33 weeks per year, allowing for only the working weeks of the year
- For waste generated in operations the data was provided by the Bank of England Facilities Department
- Downstream transportation data was provided by the ITF's courier service provider. Data was estimated on the number of parcels delivered, average weight of a parcel and distance per good trip. An emission factor of tonne.km for an average van of less than 3.5 tonnes was applied

References

All activity data used in calculations were provided by the ITF and calculations were performed using GHG activity data multiplied by an appropriate GHG emission factor. Unless otherwise indicated, emissions factors applied are derived from DEFRA and electricity grid emission factors were derived from sources stated in the Methodologies & Emission Factors section of this report. All emissions were expressed as tonnes CO₂ equivalent (tCO₂e).

Compiled with and on behalf of the ITF, as part of a GHG reporting programme by AQGT.

Glossary

CO₂e	Carbon dioxide equivalent is the universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one units carbon dioxide. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis.
GHG Protocol	Greenhouse Gas Protocol establishes comprehensive global standardised frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions.
IOC	The International Olympic Committee
Material Emissions	An emissions activity which by its inclusion or exclusion can be seen to influence any decisions or actions taken by users of it.
SDG	Sustainable Development Goals
TCFD	The Task Force on Climate Related Financial Disclosure is a framework to help public companies and other organisations disclose climate related risks and oppourtunties
Tonne.km	Unit of measure representing the movement over a distance of one kilometre to help public companies and other organisations disclose climate related risks and opportunities
UNFCCC	United Nations Framework Convention on Climate Change
RF	Radiative forcing is associated with emissions at higher altitudes and results in a higher global warming potential. Air travel CO ₂ emissions are multiplied by the radiative forcing factor to account for the higher global warming potential from emissions released at higher altitudes.

